

Greeley Health Club, Inc. Accounting Systems Analysis and Design Continuous and Final Project

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Abstract

The following case was developed and used in an undergraduate Accounting Information Systems course at the University of Northern Colorado. It is a continuous case because it is introduced as the topics and software are scheduled in class during the semester. It is a final project because several components are not required to be handed in until the final week of the course.


Teaching notes and portions of the course outline are provided. The project uses transaction processing, word processing, flowcharting, spreadsheet, database, and web authoring software. The software used by the author was AccPac Simply Accounting Pro Version 8.5, Microsoft Word, RFFlow Professional Flowcharting, Microsoft Excel, Microsoft Access, and Microsoft FrontPage.

Permission to use the material for your individual classroom use and to modify it to conform to your choice of software is hereby granted assuming proper references are provided. You will find that some detailed changes are required to adapt the project to other software.

The project text in Word format and suggested solutions using the software indicated in the paper can be downloaded by accessing the following web addresses:

<http://mcb.unco.edu/accounting/readme.doc> and <http://mcb.unco.edu/accounting/aiscaseghc.zip>

1. Teaching Notes And Suggestions

 The textbooks used for the course were:

- *Core Concepts of Accounting Information Systems*, Sixth Edition, 1999, Moscové, Simkin, and Bagranoff, Wiley Publishing Company.
- *Using Access 2000 in Accounting*, First Edition, 2001, Perry, Schneider, South-Western Thomson Learning.

The weekly assignments and the points given are indicated in the following table to illustrate how the final project material fits into the entire course. The assignments that pertain to the material in this paper are in bold and lightly shaded. The class is an online assisted course meaning it meets in the classroom half time, in the lab half time, and Blackboard is used for communication, testing, and course administration.

The continuous final project is worth a total of 350 or 35% of the total points for the semester. An attempt is made to integrate the assigned text material, the introduction of practice using the different software, and the GHC final project. Most of the practice material is completed and graded individually. All of the final project material is completed in groups consisting of three students each. The first day of class the students are asked to skim chapters 11-13 in the Moscové, Simkin, and Bagranoff text to gain an understanding of how to conduct a systems study, complete the planning and analysis phase, and design an integrated accounting information system. They are not tested over these chapters until the last week. They are told they will be expected to apply the material to the final

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project assignments. Each time a final project assignment is given the students are reminded that an important part of systems work is the planning phase. They need to carefully plan who is going to do what and when it will be completed.

Table 1
Assignment Schedule

WEEK	ASSIGNMENT	POINTS
1-4	<i>Moscove/Simkin/Bagranoff – Online tests are completed over Chapters 1, 2, and 3. Two introductory Simply Accounting projects are completed and students are introduced to the RFFlow flowcharting software.</i>	249
4	Simply V8 for Greeley Health Club Final Project – Introduction and start the configuration process. (Due Finals Week)	50
4	RFFlow Greeley Health Club Final Project – Prepare Document and Cross Functional Process Mapping Flowcharts for the project. (Due Finals Week)	50
5-9	<i>Moscove/Simkin/Bagranoff – Online tests are completed over Chapters 4, 5, and 14. Two budget projects are completed using excel. One of these is entered into Simply.</i>	169
9	Excel Greeley Health Club Final Project Budget – Prepare a budgeted Income Statement for the upcoming year for the clubs operations and enter it into Simply Accounting. (Due Finals Week)	50
10-12	<i>Moscove/Simkin/Bagranoff – Online tests are completed over Chapter 6, 7, and 8. Perry/Schneider – Chapters 2-5 are completed.</i>	148
12	Access Assignment Greeley Health Club Final Project – Part I – Establish the fields, tables, and input forms for the restaurants accounts receivable subsidiary ledger. (Handed in upon completion and graded in a group meeting.)	50
13	<i>Moscove/Simkin/Bagranoff – Online Tests over Chapter 9 and 10.</i>	31
13	Access Assignment Greeley Health Club Final Project - Part II – The emphasis for this part is on data entry, and preparing queries. (Handed in upon completion and graded in a group meeting.)	50
13	Website for Greeley Health Club Final Project – Using FrontPage develop and post a website that is informative, provides easy navigation, and contains the Greeley Health Club logo and restaurant menu. (Due Finals Week)	50
14	<i>Moscove/Simkin/Bagranoff – Online tests over Chapter 15.</i>	17
14	Access Assignment Greeley Health Club Final Project - Part III – The emphasis for this part is on reporting the information from the database and integrating it with the general ledger Simply Accounting material. (Handed in upon completion and graded in a group meeting.)	50
15	No additional assignment or points. Work on integrating all the parts of the final project. (Due Finals Week)	
16	<i>Moscove/Simkin/Bagranoff – Chapter 11-13 Online Test.</i>	37
Total Points		1001

(Additional details are provided in the download files.)

The course is required for accounting majors. The class size is usually between 22 and 30 students. The prerequisites for this course are that the students must be accounting majors who have completed Intermediate Accounting I, and Information Systems. Information Systems is a basic CIS course in the business core. The students must also have completed or be currently enrolled in Intermediate Accounting II. Many of the students are also taking Auditing I but it is not a prerequisite.

Very little lecturing is done in the course. Students are expected to read the material in the text and complete the online tests. The online tests completed in the labs using Blackboard, are open book, open notes, and timed. Students are told they can use any resource other than another person. Students are also provided with practice quizzes that can be completed anytime but do not count in their final grade.

Projects are difficult to grade. It is the author’s belief that the instructor should act as a project coach providing feedback often but normally only at the student’s request. The objective is to have the students gain the experience and not necessarily learn to use a specific set of software tools.

You will find on the following pages part of the narrative presented to the students for the final project called the Greeley Health Club and for the proposed restaurant accounts receivable subsidiary ledger database project. Personalizing project information such as using faculty names as employees enhances students' interest and the ability to remember information. The project is written as instructions to the students and again you are encouraged to modify and use this material in your classes.

2. The Greeley Health Club Project

You have been assigned to develop an accounting information system for Greeley Health Club, Inc. (GHC). GHC is a closely held corporation that has three major shareholders. Each shareholder made an initial capital contribution of \$3,333.33 on June 1, 2001 when the business was first started. In anticipation of expanding operations in 2002 each stockholder made an additional investment of \$20,000.00 in late December 2001.

Another major source of financing is provided by a loan from the First Bank of Greeley. The amount of this loan can be up to \$210,000.00 and can be used as follows: \$150,000.00 for inventory purchases, \$35,000.00 for equipment and leasehold improvement expenditures, and \$25,000.00 for working capital for operating expenditures. The bank loan agreement requires that GHC expenditures cannot exceed these amounts for each category, however smaller amounts may be used. The loan proceeds will be disbursed when needed, however, GHC must accumulate vendor invoices and provide copies of the expenditures to the bank to verify that the expenditures are in accordance with the agreement to receive any additional funds. In other words, GHC will receive the funds on a demand basis for appropriate expenditures and only when they provide the loan officer with adequate verification of the amount to be paid.

There are currently three major revenue-producing functions at GHC. They are:

- Simulation golf, racquetball, and tennis
- Exercise facilities and training programs
- Merchandise sales of golf, racquetball, and tennis accessories

A fourth revenue producing function is scheduled to start in January 2002. It is a gourmet health food restaurant.

The simulations are high tech cubicles that allow the user to practice their chosen sport using their own equipment. Sensors in the walls simulate actually playing a game and provide the user with feedback and suggestions for improvement. The cubicles are rented to customers at an hourly rate of \$50 for golf, \$40 for racquetball, and \$30 for tennis. There are three cubicles of each type available for a total of nine.

The exercise facilities are included with the sale of a training program. The customer is assigned to a trainer who sets up a specific program of exercise and diet. The trainer's fee and the use of the exercise facilities for a specified time are included with the training program contract. Trainers encourage customers to also use the simulations for further exercise at an additional fee. It is anticipated that the restaurant will also be recommended to customers by the trainers as a part of their diet program. This is encouraged by offering a commission to the trainer of 5% of the simulation rentals. A similar program will be implemented for the restaurant where the trainer will receive a commission of 30% of the first year's membership fee for a new member.

A proshop is available that sells the accessories for each sport. It is also used to collect the rentals for the simulations, sell training programs, schedule the exercise facilities, and will take reservations for the restaurant when it is opened. The Proshop Manager, Assistant Proshop Manager, and the Office Manager are responsible for overall management of the organization and keeping the business records. They are also the three shareholders.

The gourmet health food restaurant is being established to provide health food for customers who are serious about losing weight and getting in shape. The idea is to encourage members to eat specific, healthy, appetite suppressing food and also allow the members to bring guests much like a normal restaurant. There will be a limited menu available and it will be reasonably priced. The member must be present to bring guests. Guests are served from the same menu but their food would not contain the appetite suppressant. Members will be provided a statement each month that indicates the meals eaten. The information will be reported to the customer's trainer if they are in a training program.

Sales of merchandise, simulation rentals, and training contracts are on a cash, VISA credit card, or open account basis. The gourmet health food restaurant sales will be provided for members only and only on open account. Members will pay a yearly membership fee of \$240.00 and are required to purchase a minimum of \$100.00 of food each month. The members will be billed for their food charges on a monthly basis. These amounts will be required to be paid within fifteen days or a 10% charge will be added to their account.

GHC wants to use a computerized system that produces sales invoices. At the same time, they hope to have their inventory records updated on a perpetual basis as much as possible.

The golf product lines will consist of golf accessories such as clubs, putters, bags, balls, clothing, shoes, tees, gloves, head covers, and spikes. The tennis and racquetball product lines will be made up of accessories such as racquets, balls, shoes, clothes, grips, and racquet covers.

Miscellaneous services are provided at the proshop such as restringing racquets, replacing golf club or racquet grips, and other repairs. Repairs are charged at \$30.00 per hour plus supplies and parts. Group golf, tennis, and racquetball lessons are given at \$25.00 per hour.

A few of GHC's customers are listed in Table 2. Additional customers are on the files that can be downloaded for the case. Statements and merchandise are sent to the same address. Credit terms are Net 15. Sales tax is charged on all merchandise and parts sales at 6%. Services are not subject to sales tax. All customers have a credit limit of \$500.00. All customers are charged the regular selling price for all goods and services. Restaurant food and beverage sales will also be subject to sales tax.

**Table 2
Customer Information**

Donald Tromp 100 Finance Place Greeley, CO 80631 353-1235 dtromp@rich.com	Arnold Palming 450 Long Drive Greeley, CO 80631 353-1235 palming@aol.com
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(Additional details are provided in the download files.)

The golf, tennis, and racquetball product lines are purchased from approximately 50 suppliers. The suppliers allow a 2% discount if payment is made within a 10 day period and otherwise, the payment is due within 30 days. The discount is calculated before tax. 1099s are sent to all vendors and the income is classified as "other income". Purchases for resale are not subject to sales tax.

The Assistant Proshop Manager is responsible for tracking the inventory items and determining the items to be ordered. The Proshop Manager authorizes orders before being entered by the Office Manager. Some of the merchandise suppliers are listed in Table 3. Additional vendors are on the files that can be downloaded for the case.

**Table 3
Merchandise Vendors**

Rocky Mountain Sports 1550 Pikes Peak Ave Denver, CO 80214 303-422-1212 RMS@mindspring.com Fed ID: 94-912689	Discount Golf & Tennis 1313 Mockingbird Lane Las Vegas, NV 64521 414-864-4424 DiscGT@zeronet.com Fed ID: 93-569839
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(Additional details are provided in the download files.)

The cook will be responsible for tracking and purchasing the food and staples for the restaurant. Most of the food will be purchased in frozen meal units requiring final preparation. Part of this preparation is to add the appetite suppressant for the member's meal. The staples will be purchased in bulk from local suppliers. An inventory of meal units will be carried approximately equal to one weeks needs. Staples will be purchased on an "as needed"

basis carrying only a small inventory. The Proshop Manager authorizes these supply orders before being entered by the Office Manager.

Restaurant supplies will be ordered by the head waitperson. These will also be purchased from a local supplier and will be purchased only on an "as needed" basis carrying a very small inventory. The Proshop Manager authorizes orders before being entered by the Office Manager.

Some of the vendors for the food and supply items are listed in Table 4. Additional vendors are on the files that can be downloaded for the case.

Table 4
Food Vendors

Health Food Emporium 362435 Proportions Drive Denver, CO 80214 970-356-6598 HFE@rkymtn.net Fed ID: 96-659128	Cutting Supply Wholesale 1432 8 th Avenue Greeley, CO 80632 Cuttings@worldnet.com Fed ID: 91-918782
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(Additional details are provided in the download files.)

The salaries for the current employees are: Proshop Manager \$32,440, Assistant Proshop Manager \$24,360, Office Manager \$30,400, trainers \$7.00 per hour plus commissions on their simulation customer revenue. When the restaurant is added the trainers will also receive their commission on new memberships.

In the restaurant the salaries will be \$23,000 for the cook, and \$22,000 for the head waitperson. The part time wait staff will be paid \$8.00 per hour. Tips are not accepted. Payroll is paid weekly every Friday.

Table 5 shows an example of the information required for each employee. Additional employees are on the files that can be downloaded for the case.

Table 5
Employee Information

John R. (Jack) Stewart, Proshop Manager/Salesperson, Salary \$32,440/Year
2876 18th Avenue
Greeley, CO 80631
SSN 123-45-6789
Phone: 970-352-7851
Birthdate: 4/15/50
Hiredate: 6/1/01
Married claiming 4 exemptions for Federal and State Income Taxes

(Additional details are provided in the download files.)

To start the restaurant GHC plans to complete \$25,000.00 in leasehold improvements. To implement the new information system \$10,000 is budgeted which would include a computer system.

GHC management desires to have their accounting and management information system PC computer based, using an integrated accounting system. They also plan to use word-processing, spreadsheet, flowcharting, database, and web authoring software.

Table 6 and 7 provide Balance Sheet and Income Statement information obtained from the manual system used by the business for the six months it was operated in 2001.

Table 6
Balance Sheet

Greeley Health Club
Balance Sheet
December 31, 2001

ASSETS		
Cash in Bank	\$ 73,962.40	60.0%
Accounts Receivable	699.50	0.6%
VISA Receivable	332.70	0.3%
Merchandise Inventory	7,630.80	6.2%
Furniture and Fixtures	15,000.00	12.2%
Accumulated Depreciation Furn & Fix	(750.00)	-0.6%
Machinery & Equipment	18,125.00	14.7%
Accumulated Depreciation Mach & Equip	(906.25)	-0.7%
Leasehold Improvements	10,000.00	8.1%
Accumulated Depreciation LH Imp	<u>(1,000.00)</u>	<u>-0.8%</u>
Total Assets	<u>\$123,094.15</u>	<u>100.0%</u>
LIABILITIES		
Accounts Payable	\$ 7,869.00	6.4%
Sales Tax Payable	143.88	0.1%
Payroll Taxes Payable	0.00	0.0%
Federal Income Tax Payable	450.21	0.4%
Notes Payable	<u>38,375.00</u>	<u>31.2%</u>
Total Liabilities	<u>\$46,838.09</u>	<u>38.1%</u>
STOCKHOLDERS EQUITY		
Capital Stock	\$ 70,000.00	56.9%
Retained Earnings	<u>6,256.06</u>	<u>5.1%</u>
Total Stockholders Equity	<u>\$ 76,256.06</u>	<u>61.9%</u>
Total Liabilities & Stockholders Equity	<u>\$123,094.15</u>	<u>100.0%</u>

Table 7
Income Statement

Greeley Health Club
Income Statement
June 1 - December 31, 2001

Sales - Golf Accessories	\$ 24,345.22	16.4%
Sales - Racquetball Accessories	8,012.56	5.4%
Sales - Tennis Accessories	11,745.23	7.9%
Simulation Cubicle Rental	59,468.25	40.0%
Training Program Revenue	39,945.26	26.9%
Repair Revenue	<u>5,239.30</u>	<u>3.5%</u>
Total Revenue	<u>\$148,755.82</u>	<u>100.0%</u>
COGS - Golf Accessories	\$ 14,607.13	9.8%
COGS - Racquetball Accessories	4,807.54	3.2%
COGS - Tennis Accessories	7,047.14	4.7%
Freight In	<u>419.23</u>	<u>0.3%</u>
Total COGS	<u>\$ 26,881.04</u>	<u>18.1%</u>
Salary & Wages Expense	\$ 62,323.15	41.9%
Commission Expense	1,795.65	1.2%
Social Security Tax Expense	3,589.03	2.4%
Medicare Tax Expense	833.21	0.6%
FUTA Expense	513.45	0.3%
SUTA Expense	1,280.95	0.9%
Advertising Expense	7,467.26	5.0%
Credit Card Fees	1,792.14	1.2%
Rent Expense - Building	6,000.00	4.0%
Rent Expense - Simulation Equip	18,000.00	12.1%
Repair Parts Expense	2,548.23	1.7%
Repair Supply Expense	250.00	0.2%
Bad Debts Expense	0.00	0.0%
Insurance Expense	1,200.00	0.8%
Utility Expense	2,999.84	2.0%
Freight Out	0.00	0.0%
Credit Card Interest and Charges	0.00	0.0%
Depreciation Expense - F&F	750.00	0.5%
Depreciation Expense - Mach & Equip	906.25	0.6%
Depreciation Expense - LH Improvements	1,000.00	0.7%
Interest Expense	1,919.35	1.3%
Income Tax Expense	<u>450.21</u>	<u>0.3%</u>
Total Expenses	<u>\$115,618.72</u>	<u>77.7%</u>
Net Income (Loss)	\$ <u>6,256.06</u>	<u>4.2%</u>

Tables 8, 9, and 10 provide detailed subsidiary ledger information for Receivables, Inventory, and Payables.

Table 8
Receivable Details

Greeley Health Club
Account and Credit Card Receivable Detail
December 31, 2001

	Invoice	Balance	Date Sold
Donald Tromp	530	\$100.70	Dec 10, 01
Jack Nickels	497	398.20	Dec 20, 01
John Madenroe	589	47.70	Dec 18, 01
Steffi Grip	521	121.90	Dec 24, 01
James Garner	430	31.00	Dec 05, 01
VISA	None	<u>332.70</u>	Various
		<u>\$1,032.20</u>	

Table 9
Merchandise Inventory Details

Greeley Health Club
Merchandise Inventory
December 31, 2001

	Unit	OH Qty	Min Qty	Selling Unit Price	Average Unit Cost	Total Cost
Wilson Tennis Racquets	Each	29	10	\$ 90.00	\$ 54.00	\$1,566.00
Wilson Staff Golf Clubs	Set	5	3	435.00	261.00	1,305.00
Spaulding Golf Balls	Box	95	25	22.00	13.20	1,254.00
Head Tennis Racquets	Each	11	10	150.00	90.00	990.00
FootJoy Golf Shoes	Pair	12	15	95.00	57.00	684.00
Ektel Racquetball Racquets	Each	12	10	70.00	42.00	504.00
Spaulding Golf Clubs	Set	2	3	350.00	210.00	420.00
Ping Putters	Each	12	10	45.00	27.00	324.00
Ram Golf Clubs	Set	1	3	375.00	225.00	225.00
Spaulding Shorts	Each	11	15	25.00	15.00	165.00
Ektel Racquetballs	Each	42	25	4.00	2.40	100.80
Yonnx Sweatpants	Each	4	15	30.00	18.00	72.00
Prince Tennis Balls	Each	7	25	5.00	3.00	<u>21.00</u>
Total Cost						<u>\$7,630.80</u>

Table 10
Accounts Payable Details

Greeley Health Club
Accounts Payable
December 31, 2001

	Invoice	Amount	Date Purchased
Discount Golf & Tennis	X387	\$ 675.00	Dec 18, 01
Wilbers Tennis Supply	89643	620.00	Dec 04, 01
Big-Tex Golf Supply	IAB489	566.00	Dec 26, 01
Clubs & More	678	855.00	Dec 16, 01
Blues Brothers Golf & Tennis	TYU876	1,950.00	Dec 18, 01
All American Sporting Goods	4823478	225.00	Dec 20, 01
Ball World USA	NONE	695.00	Dec 22, 01
Sports Equipment Inc.	987XT	405.00	Dec 15, 01
Nevada Bobs	90123K	546.00	Dec 19, 01
Supreme Goods	763	108.00	Dec 02, 01
Porky's Sports	P67I27G	<u>1,224.00</u>	Dec 17, 01
		<u>\$7,869.00</u>	

Currently the company is using a manual information system. The building is located at 917 20th Street. There is a restaurant business located next to the club facilities that is moving and that space will be used for the new GHC restaurant. The files that can be downloaded for the case include facility drawings including the current and proposed facilities layout. The restaurant addition will only require changing some partitions between the exercise facilities and the new restaurant facilities.

Forms currently used for documenting financial transactions are an Inventory List, Purchase Requisition, Purchase Order, Sales Invoice, and a Customer Statement. Examples are included on the files that can be downloaded for the case.

The assistant manager keeps the Inventory List form for the Proshop and all supplies for the exercise room and simulations. This person completes Purchase Requisitions as needed and gives them to the manager with the Inventory Lists for authorization. The manager keeps one copy of the requisition and the original is given to the of-

fice manager. He determines the vendor to order from and prepares the Purchase Order. He then sends one copy to the vendor and files the second copy by number. Deliveries come to the main entrance and are received by the Proshop Manager or Assistant Manager. When the restaurant is opened deliveries will be changed to arrive at the back loading area. The items received are checked on the vendor invoice, discrepancies are noted, and the invoice/receiving report is signed. This is given to the office manager who matches it to the Purchase Order and enters the purchase into the manual accounting system. The Vendor invoices are filed in a tickler file by due date. Each day the invoices to be paid are pulled and paid with hand written checks and recorded in the accounting system.

The trainers, and the proshop managers currently initiate all sales and paper work. They usually direct customers to a trainer for consultation to set up a training program and initiate a contract. They provide a contract to customers who want to enter a standard training program and the trainers get no commission on these. The managers approve all contracts. They collect payment and deliver them each day to the office manager for recording. The proshop managers process simulation facility rentals and sales from the Proshop. They use a rented cash register that provides a summary of each day's activity. Sales Invoices are manually prepared for all sales. The activities for each day are coupled with the sales invoices, contracts, and cash register tapes. These are then delivered to the office manager to record. He deposits all cash receipts daily and makes all cash payments by check. The assistant manager prepares the bank reconciliation each month. It is approved by the manager and given to the office manager to record. Incoming mail is always opened by two of the three managers. The two managers opening the mail prepare a list of all cash receipts and the third manager approves it. The office manager records them in the system and includes them in the daily deposit.

The office manager prepares financial statements manually on a monthly basis. He also prepares and sends customer statements on a monthly basis.

The business bank account is maintained at Intra-East Bank. The bank sends a bank statement at the end of each month along with the cancelled checks.

3. Other relevant information related to GHC:

- 1.) Approximately 30% of total sales are expected to be on credit cards. GHC pays a local bank 3.0% of the sales amount as a credit card service charge. Twenty five percent of total sales are expected to be on thirty-day open account with no discounts. Sales taxes total 6.0% on retail items including 3.0% for state sales tax and 3.0% for city sales tax.
- 2.) Cost of goods sold averages 60% of the retail sales value.
- 3.) GHC plans to take advantage of all purchase discounts.
- 4.) Expected advertising expense for the restaurant is fixed at \$100/month.
- 5.) Expected insurance expense for the restaurant is fixed at \$200/month.
- 6.) Expected utility expense for the restaurant is fixed at \$300/month
- 7.) The hours for the exercise facilities are 7:00 a.m. to 9:00 p.m. The hours for the restaurant will be 9:00 a.m. to 6:00 p.m.
- 8.) Interest should be charged on late accounts receivable at 2%.
- 9.) There are no other employee deduction items other than the usual withholdings for taxes.
- 10.) GHC is currently using a periodic inventory system.
- 11.) In this small business you do not need to be concerned with vacation benefits.
- 12.) You can use the following tax ID numbers - State 123456789 and the federal 098765432
- 13.) Monthly budgets should be prepared.
- 14.) The following employer payroll tax rates should be used:
SUTA – 2%
FUTA - .8% (8/10 of one percent)
- 15.) Receipts and Sales Quotes have not been used in the past. The NEXT number is as follows for the following forms:
Purchase Invoices – 1763
Sales Invoices – 4864
Purchase Orders – 2528
Deposit forms – 1539

- Checks - 1357
- 16.) The leasehold improvements for the restaurant will be depreciated on a straight-line basis for 10 years.
 - 17.) The rent on the restaurant will be \$2,000 per month. It is an operating lease and includes all the equipment for the restaurant. As equipment or furniture and fixtures are replaced they will be dropped off the current lease and the amount adjusted. (You should set up the fixed asset accounts and Accumulated Depreciation accounts in Simply but assume there will be no replacement items during the upcoming year.)
 - 18.) The business does not have enough experience to establish an estimate of bad debts but you should set up accounts to provide for bad debts in the future.
 - 19.) Part-time employees in the restaurant will work approximately 30 hours per week.
 - 20.) The fee charged by VISA for all credit card customer charges is 3%
 - 21.) There are no memberships for the exercise facilities portion of the business. Training Program fees are \$75.00 per month paid on a monthly basis and include free access to the exercise facilities. Patrons who just want to use the exercise facilities and are not in a training program are charged \$5.00 per hour when there is room. The simulation cubicles rent for \$10.00 per hour.
 - 22.) It is estimated that revenues in the current business will continue with approximately the same seasonal fluctuations but they are expected to increase by approximately 2% per month (compounded) for the upcoming year.
 - 23.) The restaurant expects to start with approximately 50 new members. The trainers have sold approximately 20% of these. It is estimated that restaurant memberships will increase by 3% per month (compounded) for the first year.
 - 24.) Forfeits in the restaurant are very hard to budget. GHC management expects that the average forfeit per member would be approximately \$10 per month.
 - 25.) You can assume the cost behavior patterns for the current operating expenses will remain approximately the same.
 - 26.) The only way that patrons of the restaurant can use a credit card for payment is for their membership fee at the time they join (or they can be billed and pay it at the end of their first month by check or cash) and to prepay at least the minimum charge for each month on the first day of the month.
 - 27.) It is expected that the average number of meals per day per member in the restaurant will be .75 and the average number of beverages served will be 1.2 per day per member. The average meal price will be \$7.25 and the average beverage price will be \$1.00. The average COGS will be approximately 60% for meals and 40% for beverage.
 - 28.) All the facilities are open seven days a week closing only on Christmas and Thanksgiving day.

4. The management of GHC have set the following requirements for the new accounting system.

- A.) An up-to-date inventory system that can provide the following information for each item of-inventory: Quantities on hand, the cost of each item, the sales price, and the gross profit margin in dollars and percentages.
- B.) A sales reporting system that provides detail on the inventory that is being sold, the cash receipts from those sales, what salesperson is making the sale, and any discount given on the sale.
- C.) A cash reporting system that can tell them the daily cash receipts, sales tax collections, the required cash disbursements for the week, the projected cash requirements and balances by week, month, quarter, and year.
- D.) An accounts payable system that can tell them who they owe, due dates, and discount periods. This system needs to provide them with information on the dates, item quantities, and dollar amounts purchased from each supplier.
- E.) A purchase order system that identifies the orders that are made, the expected prices, quantity ordered, and the status of the purchase.
- F.) A payroll system that determines the weekly payroll for each employee: gross pay, FICA taxes, state and federal withholding taxes, other deductions, and net pay. Also, the system needs to be able to produce the quarterly payroll tax reports, annual payroll tax reports, and annual W-2's.
- G.) A financial reporting system that can produce monthly, quarterly, and annual financial statements including Balance Sheets, Income Statements, and Cash Flow Statements. These financial statements will be used by management and are required by the bank.
- H.) A financial projection system that can produce financial projections of the monthly, quarterly, and annual balance sheets, income statements, and cash flow statements. These projected financial statements are to

be compared to the actual financial statements so management can explain significant deviations. Revised estimates should be allowed by the system when appropriate.

- I.) A website used primarily to provide information to members and potential members regarding the services provided, upcoming activities, and special events.
- J.) A marketing system that interacts with the accounting system so information regarding the financial effects of various marketing strategies can be determined. GHC plans to use several advertising strategies and wants a system that can determine the effectiveness of these approaches.

5. Additional Information And Group Work On The GHC Club Restaurant Database Project - Part I

You must work with two other people in a group to complete this project. You can assume that I am the owner/manager of The GHC Club and that I have requested your group to establish this system. Your group should ask me as the owner/manager any questions necessary about the operations of the GHC Club to establish the AIS elements. This part of the system will include the following elements:

- Documentation using RFFlow and/or other documentation tools
- Integration with the transaction processing system general ledger using Simply Accounting
- Receivable system using Access and Simply Accounting

The manager cannot answer questions about how to set up your suggested system or questions about the software. These questions should be asked of me as your instructor. All questions directed to the manager should be asked either in class so everyone will hear the answers or emailed to me and I will respond to everyone. *IF YOU DO NOT ASK QUESTIONS YOU WILL NOT NECESSARILY GET ALL THE INFORMATION YOU NEED TO COMPLETE THE PROJECTS.*

Due to the minimum charge the GHC Club Restaurant's accounts receivable is not like a normal accounts receivable system. The calculations required for the minimum charge and the forfeits cause problems when using an off-the-shelf transaction processing package. Since this application is different from a regular accounts receivable system the decision was made to use a computerized data base management system to keep the information. The GHC Club managers want the flexibility to be able to use the information in this database to prepare mailing labels, memos, and letters to the restaurant members and also to put messages on the members statements. Since the restaurant portion of the business is new as of January 1st the GHC Club managers do not want to spend a lot of money on special forms and will want the billing statements prepared with the Access system.

The GHC Club Restaurant handles no cash. All cash receipts and disbursements are handled through the managers at the proshop.

A summary of the accounts receivable information needs to be entered into the Simply Accounting transaction processing system each month and this system will be used to prepare the financial statements for both the restaurant and exercise facilities. The revenues for The GHC Club are broken down into Food Revenue, Beverage Revenue, Membership Fees and Forfeits. The GHC Club must pay sales tax on all food and beverage sales but not on forfeits and membership fees. The tax rate is a total of 6% for the state and the city of Greeley.

VISA payments from restaurant customers are only accepted for prepayment of membership fees or restaurant charges and only on the first day of each month. Membership fees can be charged and paid in 15 days.

When a restaurant member enters the club they will be seated by a waiter/waitress. When the order is taken the waiter/waitress writes the members name and ID number on a charge ticket and writes down the order. The ticket is given to the cook and used to prepare the order. While the member finishes their meal the waiter/waitress calculates the ticket total and gives it to the customer for signature. The tickets are then collected and recorded each day in the Access system by the head waitperson.

The database must consist of related database tables. Basic information about the fields you should use is listed in Table 11. Other fields can be used but your tables must include these fields.

Table 11
Required Database Fields

Name	Information Format	Description
NUM	Numeric 3 characters	Member ID Number
FNAME	Alphabetic 25 characters	Member First Name
LNAME	Alphabetic 25 characters	Member Last Name
STREET	Alphabetic 25 characters	Member Street Address
CITY	Alphabetic 25 characters	Member City Address
ST	Alphabetic 2 characters	Member State Address
ZIP	Alphanumeric 10 characters	5 or 5+4 Zip Code
PHONE	Alphanumeric 14 characters	Phone Format (970) 351-1212
TRAINER	Alphanumeric 15 characters	Last Name of Trainer
MDATE	Alphanumeric 10 characters	Date Member Joined. format 09/05/2002
COMMISH	Alphanumeric 15 characters	Last Name of Trainer Who Earns New Member Commission
TCD	Numeric 3 characters	Transaction Type Code
TRDESC	Alphabetic 15 characters	Transaction Description
DATE	Alphanumeric 10 characters	Transaction date format 09/05/2002
TRAMT	Numeric 9 with 2 decimals	Transaction Amount
TXC	Numeric 3 characters	Code For Tax
TXR	Numeric 9 with 2 decimals	Tax Rates Per Code
VISA	Yes/No response	Yes if Payment is by VISA

After analyzing the material you will use RFFlow and/or any other software you want to plan on paper the document flows, database fields and tables. This must be printed and not hand written. Include this as part of the documentation in your final report. This project is in three parts. As soon as Part I is completed it should be handed in and you will then pick up Part II. When Part II is completed you will pick up Part III.

Since the information in Part II provides the solution to Part I (and Part III provides a solution for Part II) each part will be handed out when the previous part is completed and no assignments will be accepted late. Name the database you create "GHCCLUB" with no spaces.

Customized input forms are required for all tables that will help you control the input process and allow the operator to verify the information. For example, when a member number, NUM, is entered the members name should be displayed automatically for the operator to verify that the correct number has been entered. Another example would be to provide operators detailed directions on screen to help them understand what information is required in each data field. Ask your instructor for assistance when needed. Any individual group member can get assistance for the group.

You are required to enter at least three members information and at least seven transactions (a beginning balance, a food charge, a beverage charge, a forfeit, a cash payment, a VISA payment, and an error correction) for each member into the database system before handing in the disk and meeting with your instructor to have the material graded. Your group will need to make a 30-minute appointment with your instructor to have this graded and all members of the group must attend. This part is worth 50 of the 150 points available for the database project. Hand in one disk for your group with the group work on it on the due date assigned by your instructor.

6. Additional Information And Group Work On The GHC Club Restaurant Database Project - Part II

You will be given the database files on disk to complete this part of the project. Split up the data entry for this material but be sure each group member knows how to complete each part. The information you will be given on disk includes the GHC Restaurant members (except the members of your group), their balances forward, and transactions for February 1-28, 2002.

Add each of your group members as club members in the ClubMemb table using the numbers below. You can assign any group member name to any of the following numbers and enter real or fictitious personal information in the membership table. You are all new members as of February 1, 2002.

- Member 72 is assigned to trainer 1 and he will receive the membership Commission.
- Member 77 is assigned to trainer 2 and he will receive the membership Commission.
- Member 79 is assigned to trainer 3 and he will receive the membership Commission.

Add the records in Tables 12, 13, and 14 to the ClubTrns table for members 72, 77, and 79. As you are recording the items try to determine features you would change to improve the design of the input forms or database configuration. Try to put yourself in the place of the data entry operator. As a group, write a memo that explains the changes you suggest.

**Table 12
Group Member 72 Records**

Num	Date	Description	Amount	Tax Code	VISA
72	2/1/2002	Balance Forward	\$0.00	0	No
72	2/1/2002	Membership Fee	\$240.00	0	No
72	2/2/2002	Food Charge	\$28.00	4	No
72	2/2/2002	Beverage Charge	\$3.00	4	No
72	2/3/2002	Food Charge	\$34.00	4	No
72	2/3/2002	Beverage Charge	\$4.00	4	No
72	2/4/2002	Food Charge	\$36.00	4	No
72	2/4/2002	Beverage Charge	\$4.00	4	No
72	2/9/2002	Food Charge	\$20.00	4	No
72	2/9/2002	Beverage Charge	\$3.00	4	No
72	2/14/2002	Beverage Charge	\$1.00	4	No
72	2/14/2002	Food Charge	\$8.00	4	No
72	2/23/2002	Food Charge	\$32.00	4	No
72	2/24/2002	Food Charge	\$4.00	4	No

**Table 13
Group Member 77 Records**

Num	Date	Description	Amount	Tax Code	VISA
77	2/1/2002	Balance Forward	\$0.00	0	No
77	2/1/2002	Payment	(\$340.00)	0	Yes
77	2/1/2002	Membership Fee	\$240.00	0	No
77	2/9/2002	Food Charge	\$10.00	4	No
77	2/14/2002	Beverage Charge	\$3.00	4	No
77	2/14/2002	Food Charge	\$28.00	4	No
77	2/18/2002	Food Charge	\$25.00	4	No
77	2/23/2002	Beverage Charge	\$1.00	4	No
77	2/23/2002	Food Charge	\$8.00	4	No
77	2/24/2002	Beverage Charge	\$1.00	4	No
77	2/24/2002	Food Charge	\$8.00	4	No

Table 14
Group Member 79 Records

Num	Date	Description	Amount	Tax Code	VISA
79	2/1/2002	Balance Forward	\$0.00	0	No
79	2/1/2002	Membership Fee	\$240.00	0	No
79	2/1/2002	Payment	(240.00)	0	Yes
79	2/2/2002	Food Charge	\$8.00	4	No
79	2/2/2002	Beverage Charge	\$1.00	4	No
79	2/3/2002	Beverage Charge	\$1.00	4	No
79	2/3/2002	Food Charge	\$8.00	4	No
79	2/4/2002	Beverage Charge	\$1.00	4	No
79	2/4/2002	Food Charge	\$9.00	4	No
79	2/10/2002	Beverage Charge	\$3.00	4	No
79	2/10/2002	Food Charge	\$29.00	4	No
79	2/14/2002	Beverage Charge	\$1.00	4	No
79	2/14/2002	Food Charge	\$9.00	4	No
79	2/15/2002	Food Charge	\$8.00	4	No
79	2/15/2002	Beverage Charge	\$1.00	4	No
79	2/16/2002	Beverage Charge	\$2.00	4	No
79	2/16/2002	Food Charge	\$17.00	4	No
79	2/18/2002	Food Charge	\$8.00	4	No
79	2/23/2002	Food Charge	\$40.00	4	No
79	2/23/2002	Beverage Charge	\$5.00	4	No
79	2/24/2002	Food Charge	\$17.00	4	No
79	2/24/2002	Beverage Charge	\$2.00	4	No

Prepare a query called "QryForfeitChg" to determine the forfeits for members who have charged food and/or beverages during the month. Prepare a query called "QryForfeitNoChg" to determine the forfeits for any member who has not charged any food and/or beverage during the month. Sales tax is NOT considered in the minimum food and beverage charges each month of \$100.00. Except in special circumstances such as joining at the end of a month, if a member does not have any food and beverage charges they forfeit the full \$100.00 for the month. Print a hard copy of the queries AND RECORD THE FORFEITS.

This information should be handed in on disk (one disk for the group) on the assigned due date. You will need to make an appointment for 30 minutes with me as a group for grading the material. This will count as 50 points out of the 150 points for the database project.

7. Additional Information And Group Work On The GHC Club Restaurant Database Project - Part III

You will be given database files on disk to complete this part of the project. The files have everything in them that you should have already prepared in the two previous parts.

For control purposes prepare a report to verify the forfeits that have been recorded. Call this report "RptProofOfForfeits". You should be able to run this at anytime after forfeits have been recorded regardless of what other transactions have been recorded for the month. It should list on the screen the individual Food Charges, Beverage Charges, and Forfeits for each member. Disregarding taxes, if a member has a forfeit the total should be exactly \$100.00. If the member does not have a forfeit the total should be \$100.00 or greater.

Create a report to determine the VISA payments and print the information to identify these transactions. Call it "RptVisaPmts".

At this point you have received and/or recorded all the entries that would normally be recorded during a

month. These include balances forward, normal charges including new memberships during the month, payments during the month, and forfeits at the end of the month.

Prepare an Accounts Receivable Subsidiary Ledger report including the member number, member name, date, transaction description, transaction amount, tax, and the total amount for each transaction. Group on the member number, sort by date and within date on the transaction description. Save the report as "RptARSubLedger". It should disclose the detailed amounts by member and an overall summary total.

Prepare a query named "QryGLEntry" that could be used to determine the required entry to summarize the information into a transaction processing software package. Print the query to the printer. It should be less than one page long. On the printout prepare a hand written general journal entry that you will later enter into the transaction processing system you are establishing using Simply Accounting. (When planning the journal entry don't forget about the VISA payments.)

Prepare a query named "QryBalFwd" that provides only a total by member number/name that is the balance of each members account. It should not be more than one page long. Print this query to the printer. This could be used to record the Balances Forward dated the first day of the following month. You should NOT record these for this project.

Prepare a report named "RptMemStmt" that would serve as the member's statement to be sent at the end of the month. Each statement should be on a separate page. It should use the "balance forward" format listing a balance forward, the individual charges, taxes, totals, payments, and the ending balance. This report should NOT be printed for all members as it will be about 50 pages long. Print the statements for only members 1, 8, 32, 72, 77, and 79.

This part is worth 50 points out of the 150 total points for the database project. The due date will be announced in class. You will need to make a 30-minute appointment with me as a group to grade the material.

This Is The End Of The Access Project

8. Required Activities For All Parts Of The Continuous Final Project

Learning to ask the right questions of the right people is an important part of the analysis phase of a systems development project. Jack Stewart, GHC Proshop Manager and one of the major shareholders, will answer specific questions you may have regarding GHC operations. Questions directed to the manager will be answered without technical knowledge of the software. Dr. Stewart, your professor will answer technical questions regarding the use of the software. You must direct your questions to right person to get a good answer. You must ask a question to get information that is not presented in these written instructions.

Although it is not necessarily true, assume the software tools you have used in class are the best choices for this business. You will be working in groups of three. Split up the work but be sure the end result integrates with the other parts. A project plan indicating who is to complete the work and the scheduled completion dates should be a part of the information turned in for grading during finals week.

- 1.) Prepare a chart of accounts for GHC. This can be completed using Word or Excel but it must be printed and not handwritten. Since it will be used as part of the Simply Accounting project it should be planned and prepared separately and entered into Simply Accounting when you get to that project.
- 2.) Recommend the various computer hardware components that GHC needs to purchase. Attempt to be as specific as possible in identifying the quantity and type of hardware equipment. If you are recommending a specific type of hardware, indicate a justification for choosing it. Also, remember that GHC allocated approximately \$10,000.00 for total office equipment. You may want to recommend that additional funds be spent in this area but you must justify the additional costs.
- 3.) Realizing the size of GHC, design the accounting system, incorporating adequate internal controls, to capture the transactions, process them, summarize them, and produce meaningful information for management and external users. To accomplish this requirement, you are to prepare flowcharts, narrative, and/or any combination of system documentation techniques to document the current system and make recommendations for the new one. The documentation required using RFFlow includes Document Flowcharts and

Cross Functional Process Mapping Charts. The main emphasis of this requirement is to provide GHC with an explanation of how their transactions are captured and processed into meaningful information. Since the restaurant will be a new venture your documentation will only cover your recommendations for the new part of the system. It must also tie in to the new system for the exercise and simulation operations.

- 4.) Design the system to prepare financial projections for the current operations and the new restaurant. Export the financial statement format information from Simply to Excel and then prepare the budget in Excel. After it is prepared then it needs to be entered in Simply Accounting so actual to budget comparisons can be made. All parts must have test data entered that tests all known types of transactions and information gathering requirements.
- 5.) Knowing what GHC management has set as requirements for its accounting system, write a memo to your employer (not the client) indicating how each of the requirements was met. If a particular requirement cannot be satisfied indicate why and what else needs to be done. Remember that the client, Greeley Health Club's management, will not see this information.
- 6.) Identify the input documents that will be used to capture the transactions or data to be processed. Provide a sample of each input/source document. Identify the source of data that does not require an input document.
- 7.) Part of the material will be handed in as it is completed and part of it will be handed in during finals week. Your instructor and the managers are looking forward to your recommendations.

Appendix material regarding facilities layout and various forms used in the current manual system are not included in this printed material. They are included on the files that can be downloaded for this case.