



Computing, Digital Forensics and Cybersecurity

Open Source Internet Research Tool

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Please contact us with your suggestions.



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The Problem

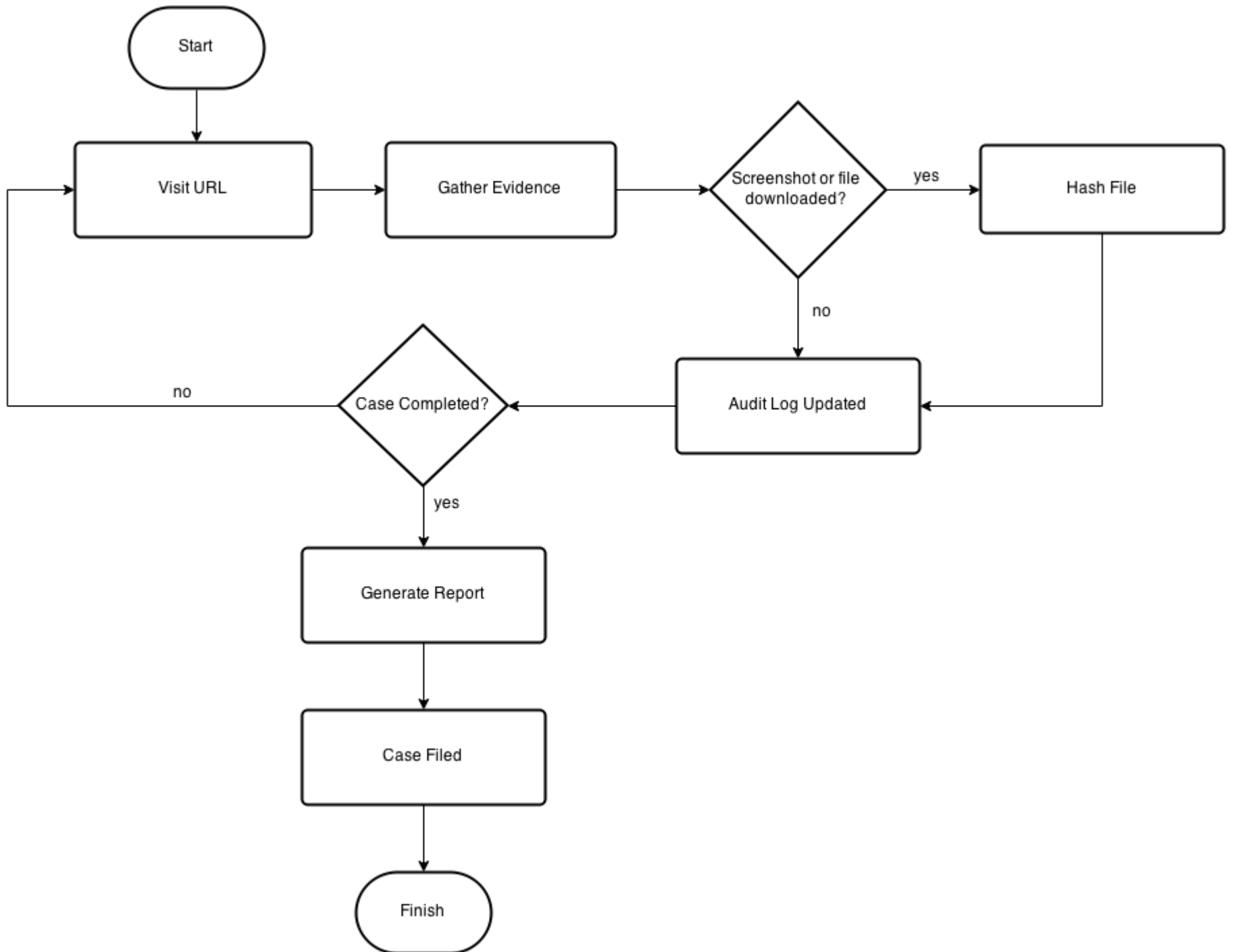


This MSc is delivered in collaboration with the College of Policing, Ryton.

- Gathering evidence online is burdensome
 - No defined protocols in UK
- College of Policing requires a bespoke tool

Requirements

- Case creation
- Evidence gathering:
 - Logging
 - Screen capturing
 - Note taking
 - Hashing
 - Report generation
- Saving and reloading cases
- Open source



Case creation

Investigating Officer	<input type="text" value="PC J Williams"/>
Investigating Agency	<input type="text" value="CCCU"/>
Operation Name	<input type="text" value="Buzzard"/>
Case Reference	<input type="text" value="CCCU_BUZZ_999"/>
Evidence Reference	<input type="text" value="CCCU_BUZZ_999_EVID"/>
Notes	<input type="text" value="Checking posts on Facebook"/>

Browser

Dynamically generated audit log

16/03/2015	18:36	http://www.canterbury.ac.uk/computing	Loaded		
16/03/2015	18:37	http://www.canterbury.ac.uk/computing/images/logo.jpg	Downloaded	D3092EA5955D4F9B138A44B3E45ED2F4	logo.jpg
16/03/2015	18:39	http://www.canterbury.ac.uk/computing	Screenshot	3150E3CA512F8E1F16C6BB688EB6EB92	cccu_001.jpg
16/03/2015	18:40	http://www.canterbury.ac.uk/	Loaded		
16/03/2015	18:43	http://www.college.police.uk/	Screenshot	4F286B315B726128100D66CD327A4108	cop_021.jpg



Constabulary logo

PC J Williams
Canterbury Christ Church University
North Holmes Road

Date Created: 16-03-2015

date	time	url	action	hash_value	file_name
16/03/2015	18:36	http://www.canterbury.ac.uk/computing	Loaded		
16/03/2015	18:37	http://www.canterbury.ac.uk/computing/images/logo.	Downloaded	D3092EA5955D4F9B138A44B3E45ED2F4	logo.jpg
16/03/2015	18:39	http://www.canterbury.ac.uk/computing	Screenshot	3150E3CA512F8E1F16C6BB688EB6EB92	cccu_001.jpg
16/03/2015	18:40	http://www.canterbury.ac.uk/	Loaded		
16/03/2015	18:43	http://www.college.police.uk/	Screenshot	4F286B315B726128100D66CD327A4108	cop_021.jpg

Report (PDF)

Current Issues

- Screen recording
- Long URLs
- Downloading files
- How to handle external calls
- Dynamic content
- Death of IE...?

Future Work

- Hot swap multiple browser engines
- Scrape, download and hash all files on page
- EXIF viewer
- Multi-platform
- Internationalisation

