

Universiti Teknologi MARA

**Autism Spectrum Disorder Screening for
Toddlers**

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SUPERVISOR APPROVAL

AUTISM SPECTRUM DISORDER SCREENING FOR TODDLERS

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This report was fully prepared under the supervision of the project supervisor, Sir Sulaiman Bin Mahzan. It was submitted to the Faculty of Computer and Mathematical Sciences and was accepted in partial fulfilment of the requirements for the degree of Bachelor of Computer Science (Hons).

Approved by

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JANUARY 3, 2020

STUDENT DECLARATION

I certify that this report and the project to which it refers is the project of my own work and that any idea or quotation from the work of other people, published or otherwise are fully acknowledge in accordance with the standard referring practices of the discipline.

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ABSTRACT

Autism Spectrum Disorder (ASD) can be threatening if not treated properly. This syndrome commonly occurred in boys compared to girls. This also could happen only when their children age as late as four years old. EBI can help making a better prognosis to a larger scope. In this modern era, laboratory test is crucial to analyse any illness especially a critical syndrome like Autism Spectrum Disorder. Autism Spectrum Disorder Screening for Toddlers application is developed to screen and give knowledge of the behaviour and personality traits of the children with Autism Spectrum Disorder. Since twin pairs has higher percentage of inheritability compared to the normal children in a family, it can increase the chance of inheriting the ASD. Children with Autism Spectrum Disorder have a disruption in brain development as they are growing and it can affects one's communication, interaction, behaviour, preference and interest with other people in their daily life, Usually, the father is not worried about the behaviour and social skill but stressed more on the syndrome's seriousness affected on his children. Furthermore, teacher-student relationship plays an important role to polish up the quality of a student such as in academic, social behaviour and even emotion Artificial Intelligence rule-based technique is used to develop the project. The project is developed using Waterfall model which consists of 5 phases such as analysis, design, implementation, testing and maintenance. Use case diagram, flowchart, rule-based flowchart and sketch design are showed in the report. Blackbox testing is used for the functionality testing. In the future, database will be implemented to make the application to be real time.

Keyword: Autism, Android, Blackbox, Waterfall model, Artificial intelligence, Rule-based

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