VIETNAM NATIONAL UNIVERSITY OF HO CHI MINH CITY
THE INTERNATIONAL UNIVERSITY
SCHOOL OF COMPUTER SCIENCE AND ENGINEERING

Implementing a Test Generation Service For Flutter Framework

By
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ABSTRACT

Software testing is indispensable for ensuring the reliability and correctness of any software product before deployment. Despite its importance...

1 Introduction

1.1 Background

As software systems become increasingly complex...

1.2 Problem Statement

The rapid evolution of technology has led to the proliferation...

1.3 Scope and Objectives

Initially, this thesis will only focus on one single framework: Flutter...

1.4 Structure of Thesis

This thesis consists of six chapters...

2 Literature Review / Related Work

2.1 Unit Test Generator

2.1.1 LLMs Approach Compared to Formulated Approach

To accurately give test case with correct syntax...

2.1.2 Disadvantages of LLMs

One of the most significant challenges is their propensity to generate hallucinations...

2.2 Understanding Business Logic

2.2.1 The Concept of Business Logic

An industry's business logic can be seen as...

3 Methodology

3.1 Overview

This section will focus on explaining the requirement analysis...

3.2 User Requirement Analysis

Req.ID	Name	Description	T
001	Read project's source code	Users can send all project's source code via Git.	Fu
002	Return unit test/integration test	Users can download test files.	Fu
003	Interactive business logic analysis	Users can correct BLA results.	Fu
004	Performance	Generate test within 5 mins for medium projects.	Non-I
005	Reflect business logic	Test files should reflect business rules.	Non-I
006	Validate generated test	Syntax and logic check must be included.	Non-I

4 Implementation and Results

4.1 Implementation

Abc...

4.2 Results

Abc...

5 Discussion and Evaluation

5.1 Discussion

Abc...

5.2 Comparison

Abc...

5.3 Evaluation

Abc...

6 Conclusion and Future Work

6.1 Conclusion

Abc...

6.2 Future Work

Abc...

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A Appendix