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# Problem description

## **Crowdsourced and cloud based mobile application testing**

A mobile applications has to be deployed into many different types of mobile devices. The mobile devices can be from different suppliers, and can have very different screen size, memory size, battery capability, and operating systems. The differences of mobile devices are more problematic for Android mobile devices than for Apple ones.

The current practices for mobile application testing is to test the mobile application on different simulators. However, if there are many different simulators, run the application tests on all simulators manually or half-manually will be time-consuming.

The idea of this project is to consolidate many mobile simulators into one cloud. Tester can simply upload the mobile application on the cloud and run the test on the one simulator of the cloud, the tests will be recorded and be replayed in all other simulators in the cloud automatically.

The cloud testing service will be provided for free to all mobile application developers and testers. The could testing service will also support several developers coordinate the testing using crowdsourced testing approaches.

The task of the Master thesis will include:

1. A short literature review of the crodsrouced and cloud based testing and mobile application testing.
2. Implementation of the crowdesourced and cloud-based testing service.
3. Evaluation of the service using a mobile application.

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*dedication (optional)*

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# Summary

Write your summary here...

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# Preface

Write your preface here...

# Table of Contents

<b>Problem description</b>	<b>1</b>
<b>Summary</b>	<b>i</b>
<b>Preface</b>	<b>ii</b>
<b>Table of Contents</b>	<b>iv</b>
<b>List of Tables</b>	<b>v</b>
<b>List of Figures</b>	<b>vii</b>
<b>Abbreviations</b>	<b>viii</b>
<b>1 Introduction</b>	<b>1</b>
1.1 Motivation . . . . .	1
1.2 Problem Definition . . . . .	1
1.3 Problem Description and Contribution . . . . .	1
1.4 Report Outline . . . . .	1
<b>2 Background and Theory</b>	<b>3</b>
2.1 Crowdbased Software . . . . .	3
2.2 Testing application . . . . .	3
2.3 Crowd-based Testing Software . . . . .	3
2.4 State of the art . . . . .	3
2.4.1 Related Work . . . . .	3
<b>3 Research Methodology</b>	<b>5</b>
3.1 Research Method . . . . .	5
3.2 Research Questions . . . . .	5
3.3 Evaluation Criteria and Result . . . . .	5

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<b>4</b>	<b>Enviroment and Requirements of Services</b>	<b>7</b>
4.1	.....	7
<b>5</b>	<b>Implementations</b>	<b>9</b>
5.1	.....	9
<b>6</b>	<b>Experiments and Results</b>	<b>11</b>
6.1	Evaluation of the service using a moblile application . . . . .	11
<b>7</b>	<b>Discussion</b>	<b>13</b>
7.1	.....	13
<b>8</b>	<b>Conclusion</b>	<b>15</b>
8.1	Future Work . . . . .	15
	<b>Bibliography</b>	<b>15</b>
	<b>Appendix</b>	<b>19</b>

# List of Tables

---



# List of Figures

---

# Abbreviations

Symbol = definition

# Chapter 1

## Introduction

### **1.1 Motivation**

### **1.2 Problem Definition**

### **1.3 Problem Description and Contribution**

### **1.4 Report Outline**



# Chapter 2

## Background and Theory

### **2.1 Crowdbased Software**

### **2.2 Testing application**

### **2.3 Crowd-based Testing Software**

### **2.4 State of the art**

#### **2.4.1 Related Work**



# Chapter 3

## Research Methodology

### **3.1 Research Method**

### **3.2 Research Questions**

### **3.3 Evaluation Criteria and Result**





# Chapter 4

## Enviroment and Requirements of Services

### 4.1



# Chapter 5

## Implementations

### 5.1



# Chapter 6

## Experiments and Results

### 6.1 Evaluation of the service using a mobile application



# Chapter 7

## Discussion

### 7.1





# Chapter 8

## Conclusion

### 8.1 Future Work



# Bibliography



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# Appendix

Write your appendix here...