

TEAMTRIO

Şans Oyunları Sonucu
2016

Team Members

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Ögem Çetin

Ulaş Dalli

SOFTWARE TEST DOCUMENT

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1.Introduction

This document will address the different standards that will apply to the unit, integration and system testing of the application which tell how many numbers user hit in lottery.

2.Objective

Objective of test document is to define the various Testing strategies and testing tools used for complete Testing life cycle of this project.

3.Scope

The document mainly targets the Unit testing,Integration testing , Component testing,System testing and GUI testing of the application.

4.Testing Strategy

4.1 Unit Testing

Definition:

Technique to test smallest functional part of the applications, the units.

Participants:

Mesut Yilmaz

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Methodology:

Every developed piece of code is tested by the coder who codes that unit.

4.2 Component Testing

Definition:

Component testing of a software is conducted on the major parts (Components) of the system.The codes at components are previously tested by Unit testing.

Participants:

Mesut Yilmaz

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Methodology:

Every major parts of the software,components are tested before beginnig integration process.

After all the components integrated together and after they pass the integration test, system testing will be tested on user captured photos of coupons.

4.3 Integration Testing

Definition:

Integration testing is systematic technique for constructing the program structure while conducting test to uncover errors associated with interacting.

Participants:

Mesut Yilmaz

Methodology:

The completed components which passed from unit testing, will be integrated each other as an Android App. Components will be integrated to the App incrementally.

We have five main system components in this project: Border Detection, Perspective Correction, Logo Recognition, Line Detection and OCR.

4.4 System Testing

Definition:

System testing of software is testing conducted on a complete, integrated system to evaluate the system's compliance with its specified requirements.

Participants:

Mesut Yilmaz

Methodology:

After all the components integrated together and after they pass the integration test, system testing will be tested on user captured photos of coupons.

4.5 GUI Testing

Definition:

GUI testing will includes testing the UI part of report.

Participants:

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Methodology:

Every developed GUI for mobile device will be tested incrementally, every functionality behind the GUI will be tested.

5.Test Environment

For Unit and Component testing, all the pieces of codes are tested on Linux/Windows machines.

Integration, System and GUI testings will be done on Android devices.

6.Test Schedule

7.Control Prodecure

The control will mainly on the coder himself/herself. He/she allowed to make minor modifications his/her own component and make progress.

The major problems will be discussed at weekly meetings, and decisions will be made.

8. Features To Be Tested

- Border Detection on pictures [On PC]
- Perspective Correction [On PC]
- Logo Recognition [On PC]
- Line Detection on Coupons [On PC]
- Comparing User Numbers With Winner Numbers [On PC]

- Mobile Device Camera Functionality [On Mobile Device]
- Border Detection [On Mobile Device]
- Perspective Correction [On Mobile Device]

- Rotating Captured Images [On Mobile Device]
- Logo Recognition [On Mobile Device]
- Line Detection [On Mobile Device]
- OCR Performance [On Mobile Device]
- GUI of Mobile App [On Mobile Device]

- Tests During Integration [On Mobile Device]
- Integrated System (CORE) [On Mobile Device]
- Integrated System with GUI [On Mobile Device]

9. Roles and Responsibilities

Mesut Yilmaz:

- Border Detection on pictures [Unit and Component Testing] [On PC]
- Perspective Correction [Unit and Component Testing] [On PC]
- Line Detection [Unit Testing] [On PC]

- Mobile Device Camera Functionality[Component Testing] [On Mobile Device]
- Border Detection [Component Testing] [On Mobile Device]
- Perspective Correction [Component Testing] [On Mobile Device]
- Rotating Captured Images [Unit Testing] [On Mobile Device]

- Logo Recognition [Component Testing] [On Mobile Device]
- Line Detection [Unit,Component Testing][On Mobile Device]
- OCR Performance [Component Testing] [On Mobile Device]

- Tests During Integration [Integration Testing] [On Mobile Device]
- Integrated System (CORE) [System Testing] [On Mobile Device]

Ulaş Dallı:

- Logo Recognition [Unit ,Component Testing] [On PC]
- Logo Recognition [Component Testing] [On Mobile Device]
- Integrated System with GUI [System,GUI Testing] [On Mobile Device]
- Mobile Device Camera Functionality[Component Testing] [On Mobile Device]

Ögem Çetin:

- Line Detection on Coupons [Unit Testing] [On PC]
- Comparing User Numbers With Winner Numbers [Unit Testing] [On PC]

10. Dependencies

Tester should have Android Mobile Device , necessary cable connection with PC, and a suitable environment to make debugging/tests on Mobile Device.

Necessary coupon images should be prepared for components in software.

11. Risks/Assumptions

Output image characteristics of the components in the system may cause some additional optimizations.

For example, the logos at the top of the coupon, and the number block in the coupons are cropped via an image editor to test the components, but normally, cropped logo and number block images should come from line detection component of the system.

12. Acronyms

OCR: Optical Character Recognition

GUI : Graphical User Interface