

**ÇANKAYA UNIVERSITY**

**FACULTY OF ENGINEERING**

**COMPUTER ENGINEERING DEPARTMENT**

**Test Plan, Test Design Specifications and Test Cases**

**Version 1**

**CENG 408**

Innovative System Design and Development II

**Smart booklet empowered by augmented reality**

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## Table of Contents

**INTRODUCTION 1**

1.1 Version Control 1

1.2 Overview 1

1.3 Scope 1

1.4 Terminology 1

**2.FEATURES TO BE TESTED 1**

2.1 Graphical User Interface (GUI ) 1

2.1.1 Web Site Interface 2

2.1.1.1 Adding a Patent (AP) 2

2.1.1.2 Patent Comparison (PC) 2

2.1.1.3 Patent Result (PR) 2

1. **FEATURES NOT TO BE TESTED 2**
2. **ITEM PASS/FAIL CRITERIA 2**

Exit Criteria 2

1. **REFERENCES 2**
2. **TEST DESIGN SPECIFICATIONS 3** 
   1. Graphical User Interface (GUI) 3
      1. Subfeatures to be tested 3
         1. Useful\_Information Button(GUI\_Info) 3
         2. User Login Button (GUI\_UserLog) 3
         3. Guest Login Button(GUI\_GuesstLog) 3
         4. See\_Old\_Reports Button(GUI\_SeeRep) 3
         5. Make\_New\_Comparison Button (GUI\_NewComp) 3
         6. Yes\_Patent Button(GUI\_Yespat) 3
         7. No\_Patent Button(GUI\_Nopat) 3
         8. Save\_Info Button(GUI\_Save) 3
         9. Exit\_Button(GUI\_Ex) 3
         10. Admin Login (GUI.ADLG) 3
         11. Admin Control (GUI.ADC\_ADDQ) 4
         12. Admin Control Delete Patent (GUI.ADC\_DELQ) 4
         13. Admin Control Update Patent(GUI.ADC\_UPDQ) 4
      2. Test Cases 4

GUI\_Info 4

GUI\_UserLog 4

1

GUI\_GuesstLog 4

GUI\_SeeRep 4

GUI\_NewComp 4

GUI\_Yespat 4

GUI\_Nopat 4

GUI\_Save 4

GUI\_Ex 4

GUI.ADLG 5

GUI.ADC\_ADDQ 5

GUI.ADC\_DELQ 5

GUI.ADC\_UPDQ 5

**6.2 WebSite Interface** 5

6.2.1 Subfeatures to be tested 5

6.2.1.1 Adding a Patent (AP) 5

6.2.1.2 Patent Comparison (PC) 5

6.2.1.3 Patent Result (PR) 5

6.2.2 Test Cases 5

1. **DETAILED TEST CASES 6** 
   1. AP.AD.01 6
   2. AP.GT.01 7
   3. PC.AD.01 8
   4. PC.GT.01 9
   5. PR.AD.01 10
   6. PR.GT.01 11

2

### 1. INTRODUCTION

#### 1.1 Version Control

|  |  |  |  |
| --- | --- | --- | --- |
| **Version No** |  | **Description of Changes** | **Date** |
| 1.0 | First Version |  | 03/20/2020 |
|  |  |  |  |
|  |  |  |  |

#### 1.2 Overview

In the testing phase of our project, we want to present qr and augmented reality and information via pictures, videos and links from the catalog we designed. At the end of this test, we aim to show how useful our project is and to introduce our department that is intertwined with technology.

#### 1.3 Scope

#### The efficiency of our project will be determined within the scope of this document. Briefly, it covers the topics on which our project has been tested. These topics

#### 1.) Photograph, video, link

#### 2.) QR recognition

#### 3.) 3D image with augmented reality

#### 1.4 Terminology

|  |  |
| --- | --- |
| **Acronym** | **Definition** |
| QR Recognition | The QR code gets its name from the initials of the English which are Quick Response words. These are special matrix barcodes that can be read from the cameras of mobile devices. It is patented to the Japanese company Denso, which developed in 1994. The code menu consists of black motifs on a white square background. |
|  |  |
|  |  |
| 3D image with AR | 3D and Augmented Reality (AR) helps people view your 3D content directly . If people tap the View in 3D chip, it takes them into an immersive experience where they can interact with your 3D asset or even place it in their space with AR. |

### 2.FEATURES TO BE TESTED

We aim to introduce our department in the best way in the catalog we designed. In our catalog, we introduce our department with links, photos and videos and we offer all the information to be reached by including sections such as curriculum, academic staff, interviews with graduates.

#### 2.1 Graphical User Interface (GUI )

We presented the interface we designed in the project with our catalog. The requested information will be presented with the help of qr and ar with the sections we allocate such as academic staff, laboratories, interviews, curriculum.

### 2.2. DATABASE

We are using Vufuria application to create our database.

### 2.3. Machine Learning

We used ML part in our application in the image recognization part .If the image read to the camera has a similarity of 35% and above, the image, animation, video, sound that we have already embedded in the image in our database are displayed

#### 4. . REFERENCES

SRS [Online] - https://github.com/CankayaUniversity/ceng-407-408-2019-2020-Smart-booklet-empowered-by-augmented-reality/wiki/Software-Requirements-Specification

SDD [Online] - https://github.com/CankayaUniversity/ceng-407-408-2019-2020-Smart-booklet-empowered-by-augmented-reality/wiki/Software-Design-Document

#### 5.TEST DESIGN

We have just 3 button on the our welcome screen in your application which are start , about us and exit buttons .

#### 5.2 database

We do not have any datebase system for the users. We can create our database system in backhand of the program thanks to using Vufuria application.

#### 5.2.1 database

We just only keep images,videos and animations in our database system.

#### 5.3.2 database

If the image read to the camera has a similarity of 35% and above, the image, animation, video, sound that we have already embedded in the image in our database are displayed.

#### 6. TEST DESIGN SPECIFICATIONS

##### 6.1 Graphical User Interface (GUI)

|  |  |
| --- | --- |
| **TC\_ID** | Guı.button start (Start) |
| **Purpose** | Start the application |
| **Requirements** | 3.1 |
| **Priority** | High. |
| **Estimated Time**  **Needed** | 10 second |
| **Dependency** | Internet connection is enough to use it. |
| **Setup** | People who want to uıse that program just have to download the application. |
| **Procedure** | [A01] Press start in welcome screen  [V01] Open the AR camera |
| [A02] Image should be introduced to the camera  [V02] The embedded image will comes to the screen |
| **Cleanup** | - |

**7.2** ​**AP.GT.01**​

|  |  |
| --- | --- |
| **TC\_ID** | AP.GT.01 Button2 (About us) |
| **Purpose** | To introduce ourselves |
| **Requirements** | 3.1 |
| **Priority** | Low |
| **Estimated Time**  **Needed** | 5 second |
| **Dependency** | Internet connection is enough to use it. |
| **Setup** | People who want to uıse that program just have to download the application. |
| **Procedure** | [A01] Select about us button  [V01] Read the text  [A02] Click the return button  [V02] Return to the welcome screen |
| **Cleanup** | Return to welcome screen |

**7.3** ​**PC.AD.01**​

|  |  |
| --- | --- |
| **TC\_ID** | PC.AD.01 Button 3 (Exit) |
| **Purpose** | Exit application |
| **Requirements** | 3.1 |
| **Priority** | High. |
| **Estimated Time**  **Needed** | 5 second |
| **Dependency** | Internet connection is enough to use it. |
| **Setup** | People who want to uıse that program just have to download the application. |
| **Procedure** | [A01] Click the Exit button  [V01] Close the application |
| **Cleanup** | Exit |