



**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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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
GUI	Graphical User Interface
ML	Machine Learning
API	Application Programming Interface
DBS	Database

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 (DBS)

We are using Vuforia application to create our database.

2.3. Machine Learning Program (MLP)

We used ML part in our application in the image recognition 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

3. ITEM PASS/FAIL CRITERIA

3.1 Exit Criteria

- 100% of the test cases are executed
- 90% of the test cases passed
- All High and Medium Priority test cases passed

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 SPECIFICATIONS

5.1 Graphical User Interface(GUI)

5.1.1 Subfeature to be Tested

5.1.1.1 Start(GUI.START_BTN)

User start the application.

5.1.1.2 About Us(GUI.ABTUS_BTN)

User can learn about the users of the application.

5.1.1.3 Exit (GUI.EXIT_BTN)

User can exit the application.

5.1.2 Test Cases

TC ID	Requirements	Priority	Scenario Description
GULSTART_BTN.01	6.1	H	Open the camera to detect the object.
GULABTUS_BTN.01	6.2	L	To get information about those who did that application.
GULEXIT_BTN.01	6.3	H	To exit to the application.

5.2 Database (DBS)

5.2.1 Subfeatures To Be Tested

5.2.1.1 Database Queries(DBS.DBQRY)

We do not have any database system for the users. We can create our database system in backhand of the program thanks to using Vuforia application. We just only keep images, videos and animations in our database system.

TC ID	Requirements	Priority	Scenario Description
DBS.DBQRY.01	3.1	H	Includes content loaded on the application. Matches content to images.

5.3 Machine Learning Program(MLP)

5.3.1 Subfeatures To Be Tested

5.3.1.1 Similarity(MLP.SIM)

Vuforia compares to pictures in its own cloud.

5.3.2 Test Cases

TC ID	Requirements	Priority	Scenario Description
MLP.SIM.01	3.1	H	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. DEATILED TEST CASES

6.1 Graphical User Interface (GUI)

6.1.1 GUI.START_BTN.01

TC_ID	GUI.START_BTN.01
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 uise 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	-

6.2 GUI.ABTUS_BTN.01

TC_ID	GUI.ABTUS_BTN.01
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 uise 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

6.3 GUI.EXIT_BTN.01

TC_ID	GUI.EXIT_BTN.01
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 use that program just have to download the application.
Procedure	[A01] Click the Exit button [V01] Close the application
Cleanup	Exit