



Project Title: Framework of Augmented Reality Ads

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Course: Mobile Application Development

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1. SCOPE:

Augmented Reality based Ads Framework is an android based mobile application that will provide user with own spot product information.

Following is the scope of the application:

- Visualizing the product through device camera.
- Performing product scanning.
- Identifying the product.
- Selecting the product.
- Use of 2D objects in Augmented Reality.
- Handling the 2D objects for product information.

2. SOFTWARE AND HARDWARE RESOURCES REQUIRED

- Operating System (Windows, Mac, Linux etc.)
- 4GB RAM
- Dual Core Processor
- Internet Connection

3. LIST OF FUNCTIONS

- Scan the Product
- Click the 2D Objects
- Modify AR Information
- Feedback

SOFTWARE REQUIREMENTS SPECIFICATIONS

4. INTRODUCTION

This section gives a scope description and overview of everything included in this SRS document. Also, the purpose for this document is described and a list of abbreviation and definition is provided.

5. SPECIFIC REQUIREMENTS

a. External Interface Requirements

User will be able to scan the product, click the 2D objects that appeared on screen and get information about the product, modify the AR information and provide the feedback.

A tablet or android phone is required to run this application and internet connection is required for this application to be used by users.

b. Software Product Features

- **View Product**
 - View product in AR view and get the product information
- **Scan Product**

- Input: User selects the product and scans the barcode
- Output: User get the product details
- **Modify AR Information**
 - Input: User selects the product and modify the AR information
 - Output: AR information modified
- **Feedback**
 - Input: User gives the feedback related to product
 - Output: Send the feedback to system

c. Software System Attributes

- **Availability**
There is no constraint on the availability of this application. As far as internet is connected the app will be available to use. So, the availability is 24 hours a day if the internet is connected.
- **Security**
There is no risk of security because the ARAF does not access any private data of the user and has no confidential data as well. There is only one user who can view and scan the product in AR view and can modify the AR information as well.
- **Maintainability**
During the development period, all the things will be properly documented so that we can easily make changes and upgrade our application. Also, the software system will be flexible to upgrade.
- **Portability**
As this is an Android based application so the user can access it through any mobile phone/tablet that has an android operating system from anywhere so it is portable.
- **Reliability**
The probability of failure is zero. The app shall never crash, other than as the result of an operating system error or internet connection error. If there will any error occur, the it will display an appropriate message such that user will not feel any ambiguity while using this product.
- **Performance**
As it is android based application so its performance will be dependent on the speed of the internet. So it will show results in milliseconds if the internet speed is good enough or maximum it takes seconds if the internet speed is poor.

SOFTWARE TEST DOCUMENTATION

6. INTRODUCTION

Testing documentation includes the description of artefacts that should be developed before or during the testing of software. Documentation for software testing helps in estimating the test coverage, testing effort requires requirement tracking/tracing, etc. Testing is the process of evaluating a system with multiple inputs and scenarios to find whether it satisfies the specified requirements or not. This document helps the user to find the error during the testing activity. This section describes some artefacts related to software testing such as:

- Test Plan
- Test case

7. TEST PLAN

a. Features to be Tested

The following is the list of areas to be focused on during testing of the application:

- View Product in AR View
- Scan Product
- View Product Info
- Modify AR information
- Feedback

b. Features not to be Tested

There are no such features that aren't to be tested.

c. Testing Tools and Environment

Following tools and environment are used for testing:

- Android Operating System
- Mobile/Tablet

8. TEST CASES

TC-1: View Product in AQ

Test ID	T001
Test Description	This test case will verify the viewing the product in AR View Successfully.
Setup	Username: Mahnoor Password: 1234

Instructions	<ol style="list-style-type: none"> 1. User enter Username “Mahnoor”. 2. Enters password “1234”. 3. And click Login button.
Expected Output	Should login to system.
Verdict (Pass/Fail)	

TC-2: Scan the Product

Test ID	T002
Test Description	This test case will verify the scanning of the product in AR successfully.
Setup	Select the Product. View the Product in AR. Scan the product’s Barcode.
Instructions	<ol style="list-style-type: none"> 1. User selects the product. 2. User scans the barcode. 3. Clicks the scan button.
Expected Output	Should successfully scans the product.
Verdict (Pass/Fail)	

TC-3: View the Product Information

Test ID	T003
Test Description	This test case will verify the viewing of the product information in AR successfully.
Setup	Shows the Information in AR. Click on the information to get more Information.
Instructions	<ol style="list-style-type: none"> 1. App shows the user the product Information. 2. User clicks on the shown information we can more detailed for modified information.
Expected Output	Should successfully view the product information.
Verdict (Pass/Fail)	

TC-4: Modify AR Information

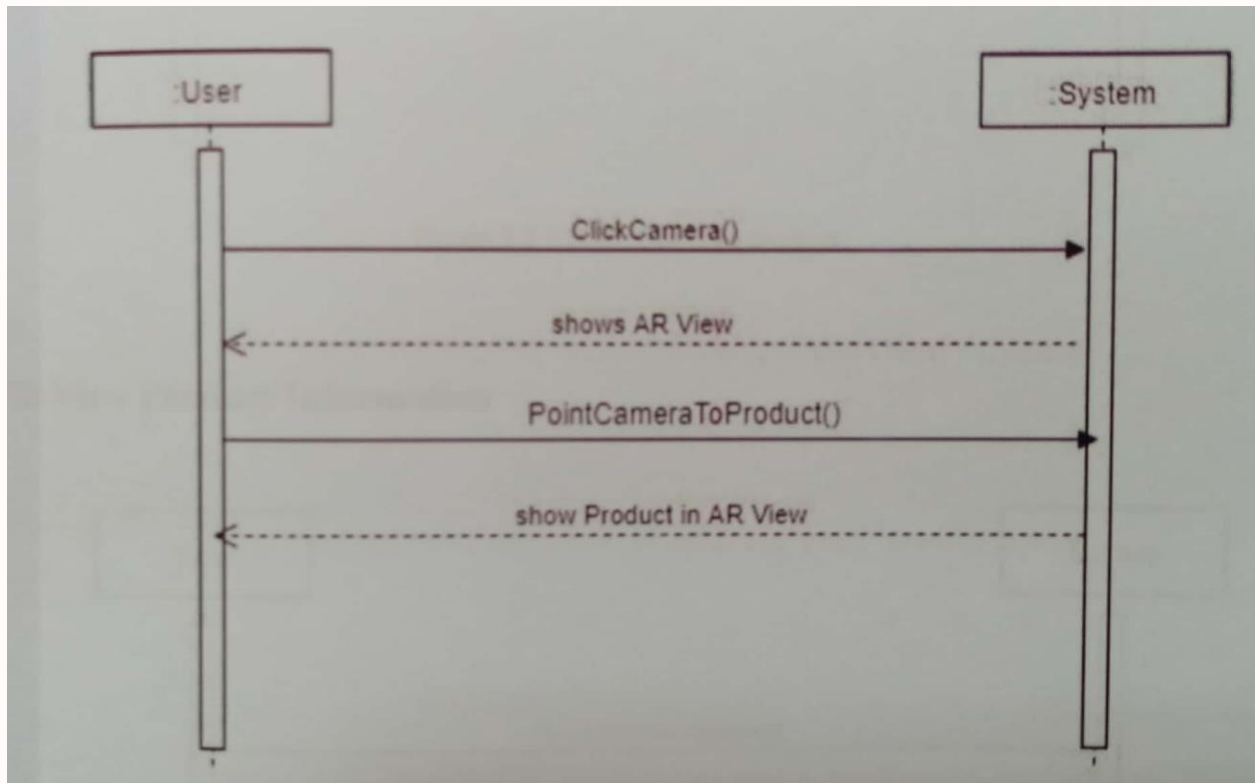
Test ID	T004
Test Description	This test case will verify the modified viewing of the product Information in AR successfully.
Setup	Shows the Information in AR. Change camera orientation. Click on the 2D objects.
Instructions	<ol style="list-style-type: none">1. App shows the user the product Information.2. User modifies the shown information by changing the camera orientation.3. User modifies the shown information by clicking on the AR information.
Expected Output	Should successfully modifies the product information.
Verdict (Pass/Fail)	

TC-5: Feedback

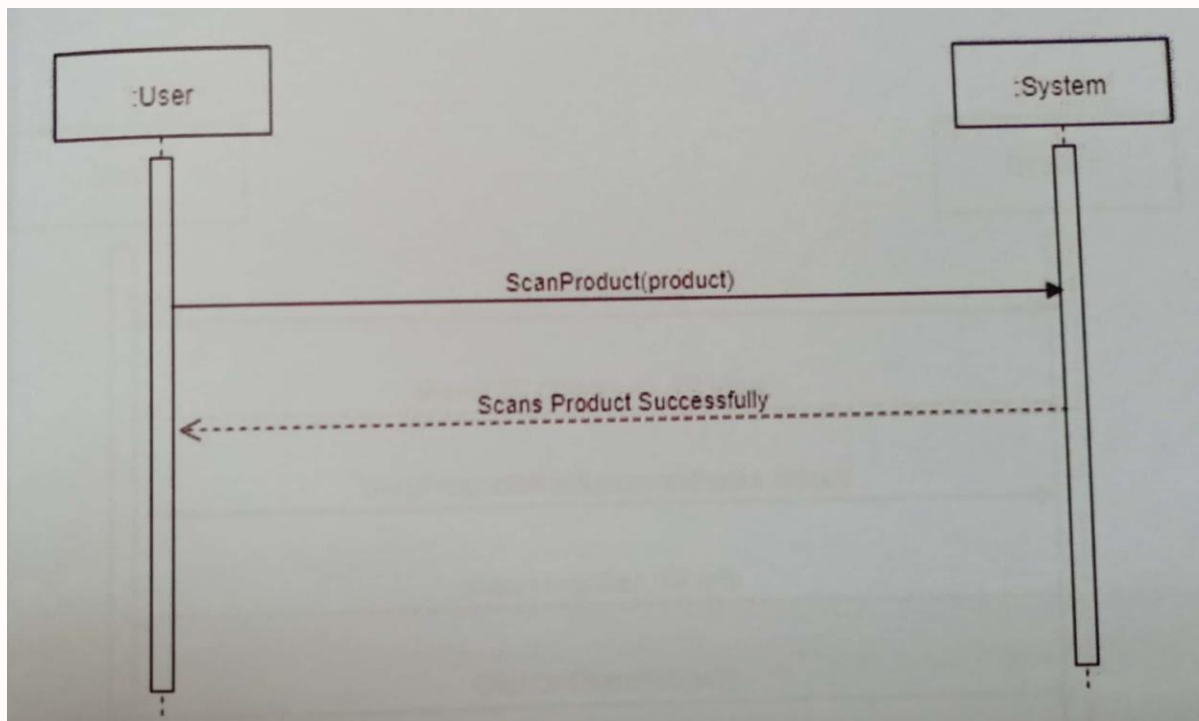
Test ID	T005
Test Description	This test case will verify the sending of feedback to the system successfully.
Setup	Username: Mahnoor. Feedback: I like the product.
Instructions	<ol style="list-style-type: none">1. User enters Username “Mahnoor”2. Feedback “I like the product”.3. And click feedback button.
Expected Output	Should sent the feedback to system.
Verdict (Pass/Fail)	

SYSTEM SEQUENCE DIAGRAMS

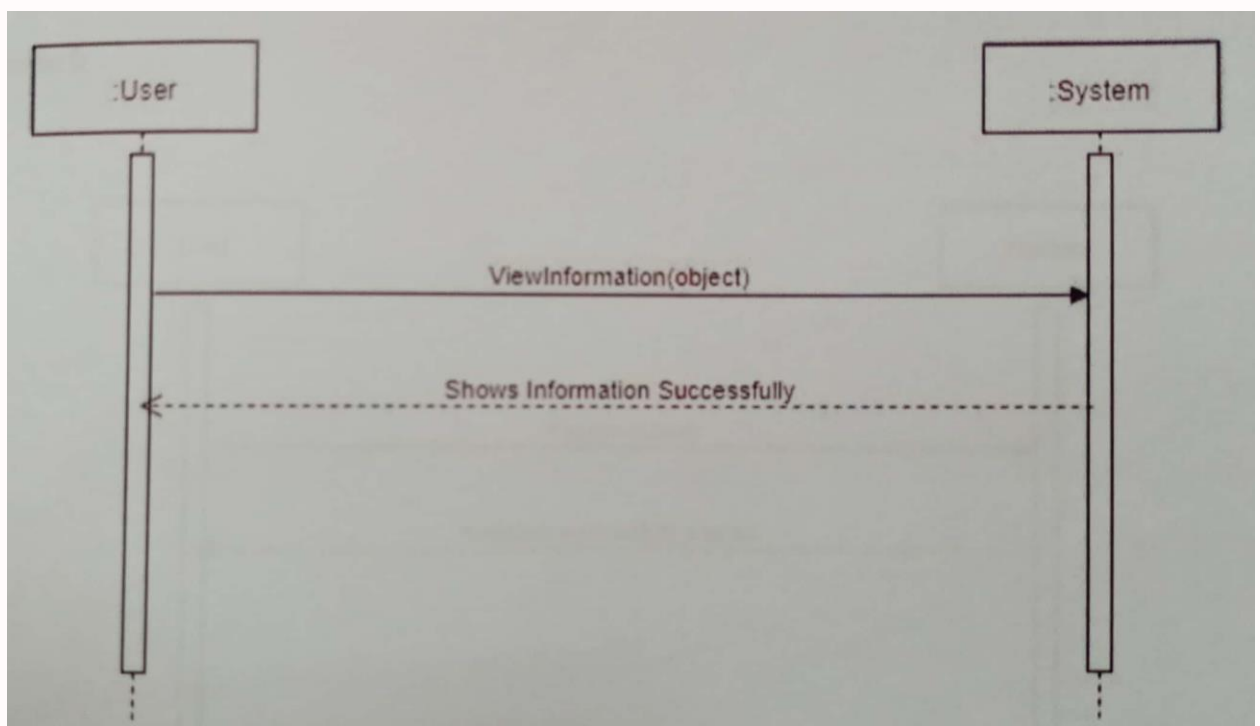
9. SSD-1: View the Product in AR View



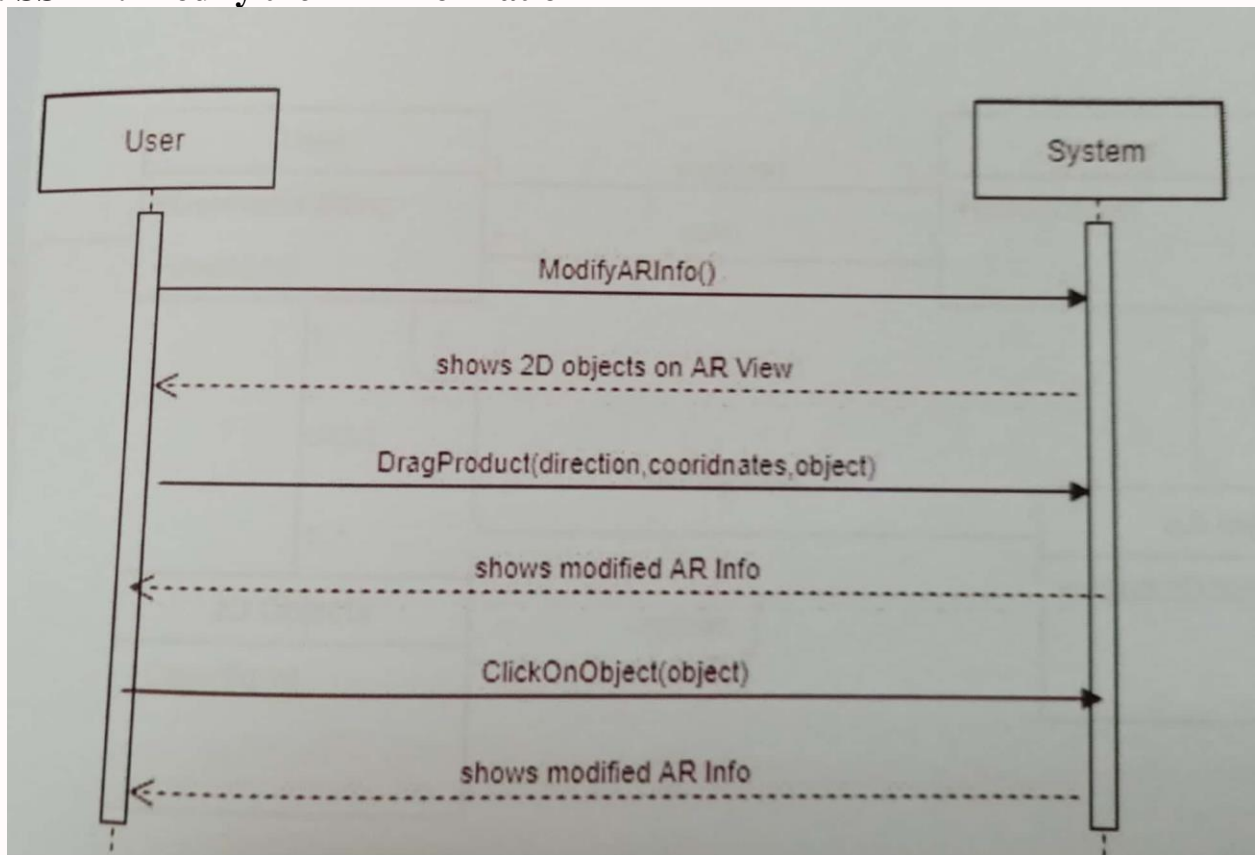
10. SSD-2: Scan the Product



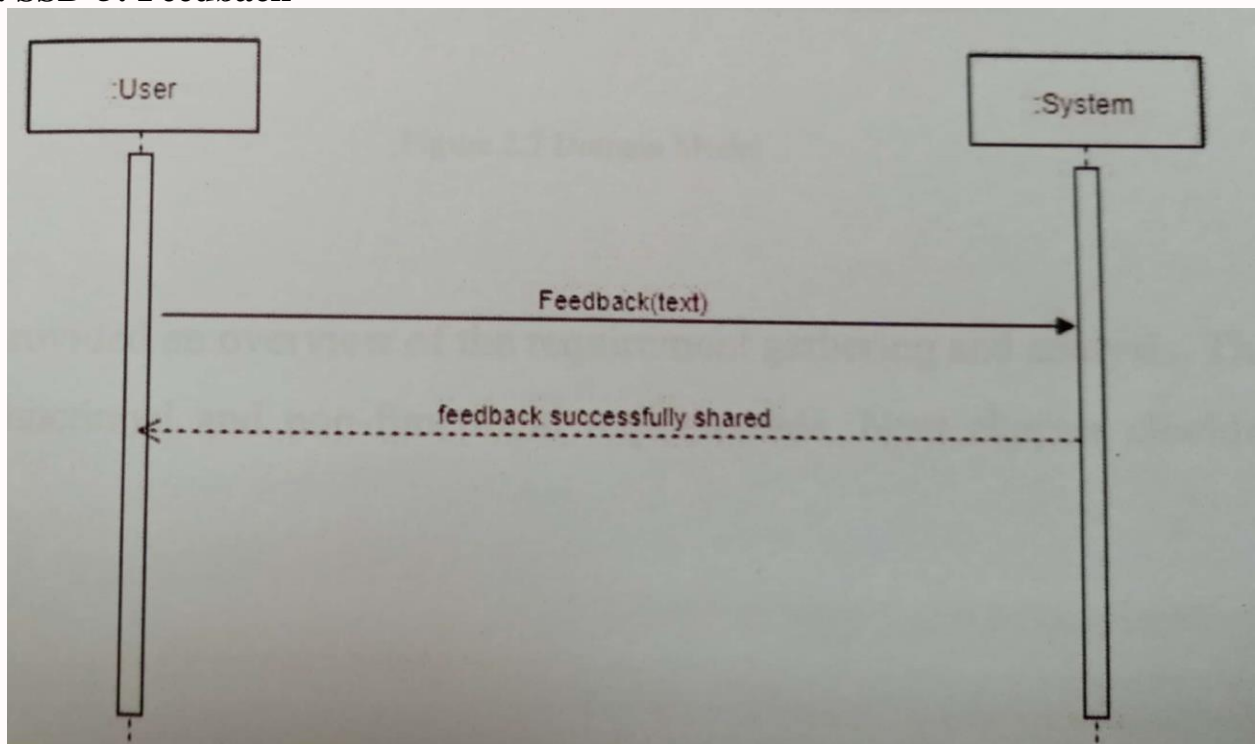
11. SSD-3: View Product Information



12. SSD-4: Modify the AR Information

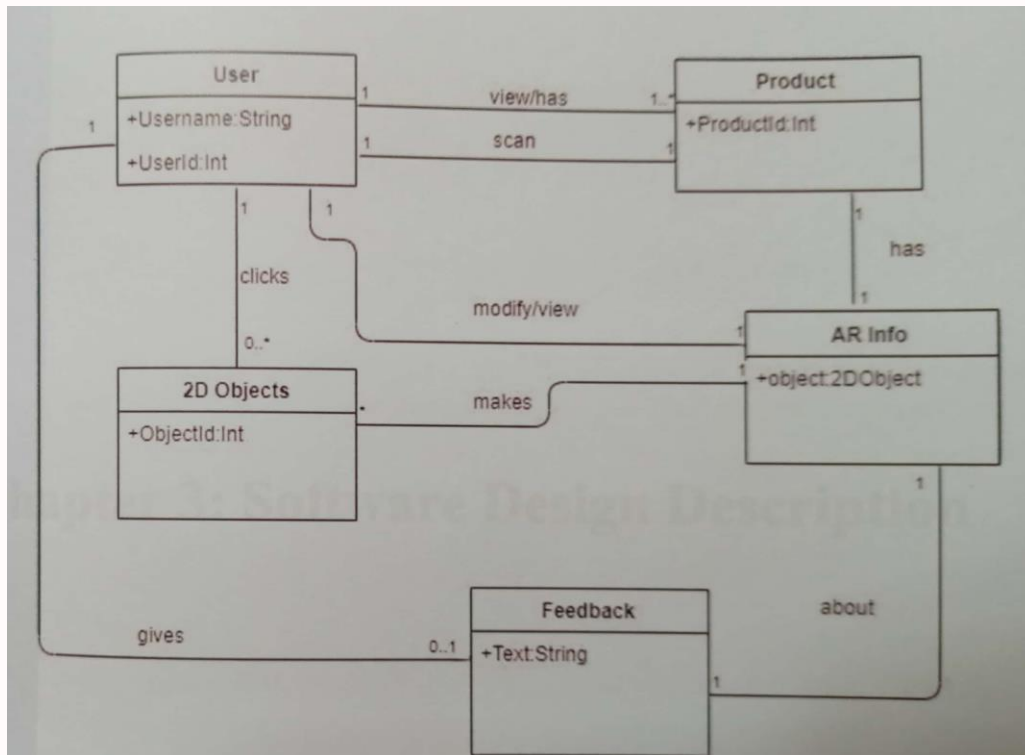


13. SSD-5: Feedback



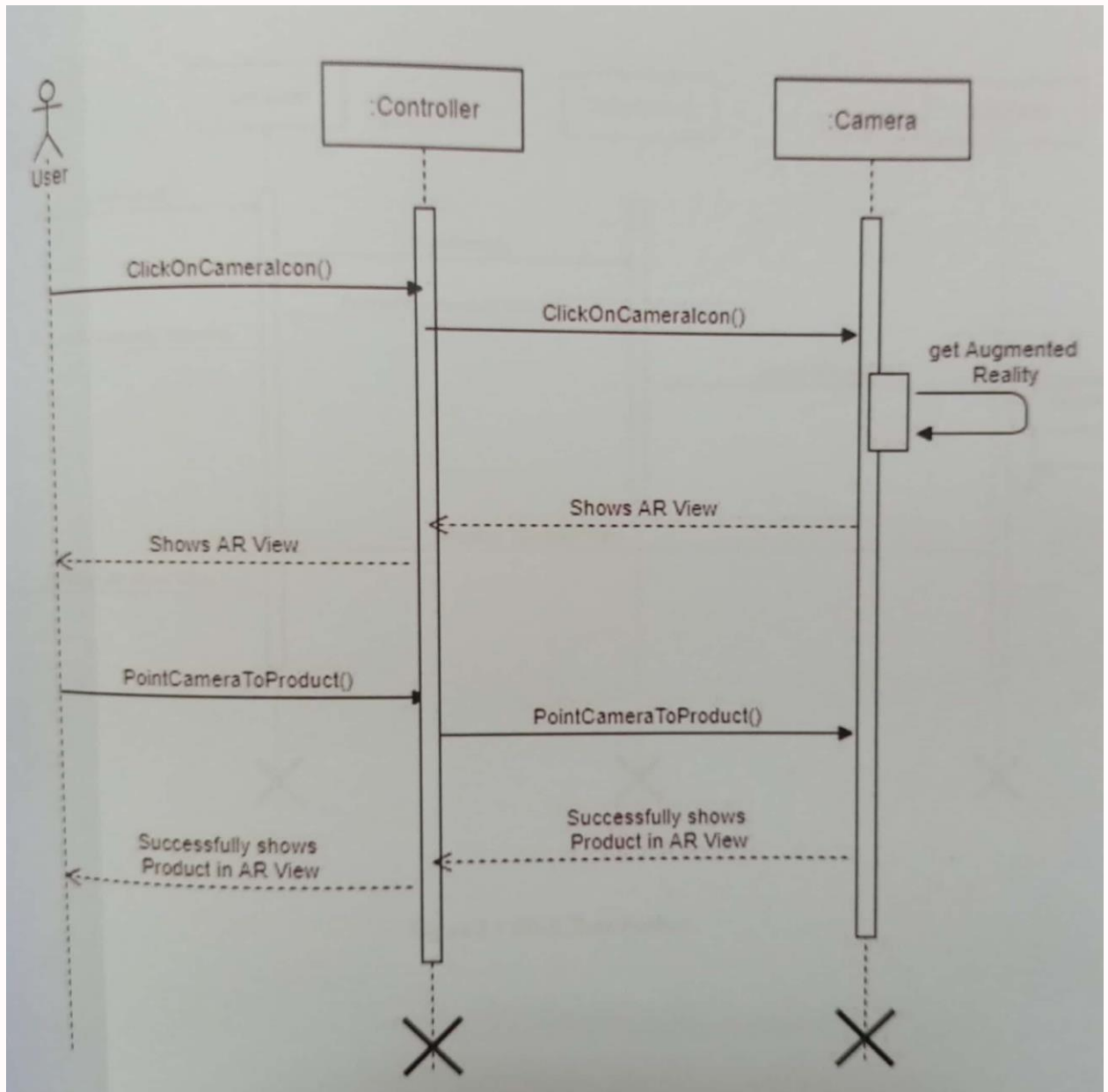
DOMAIN MODEL, INTERACTION DIAGRAMS AND CLASS DIAGRAM

14.Domain Model

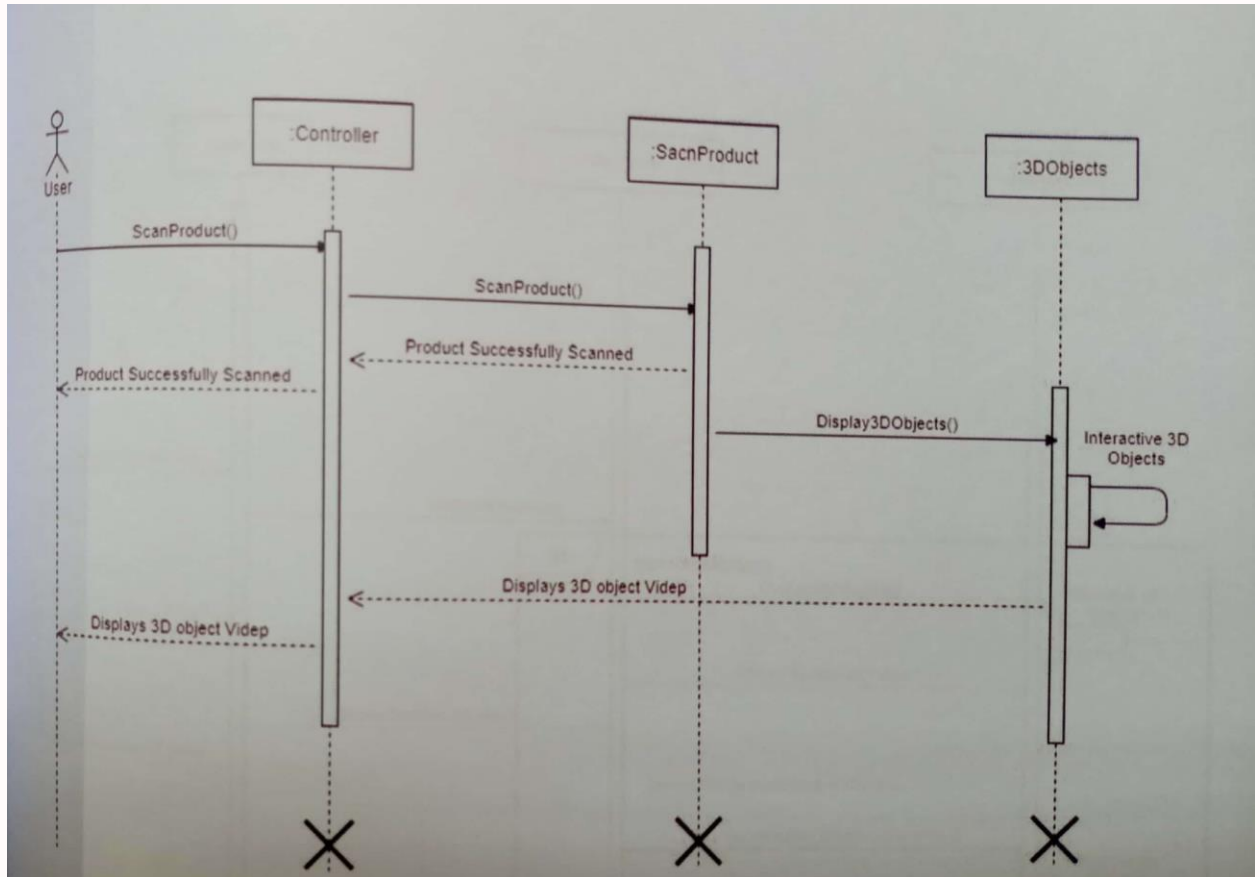


15. Sequence Diagrams

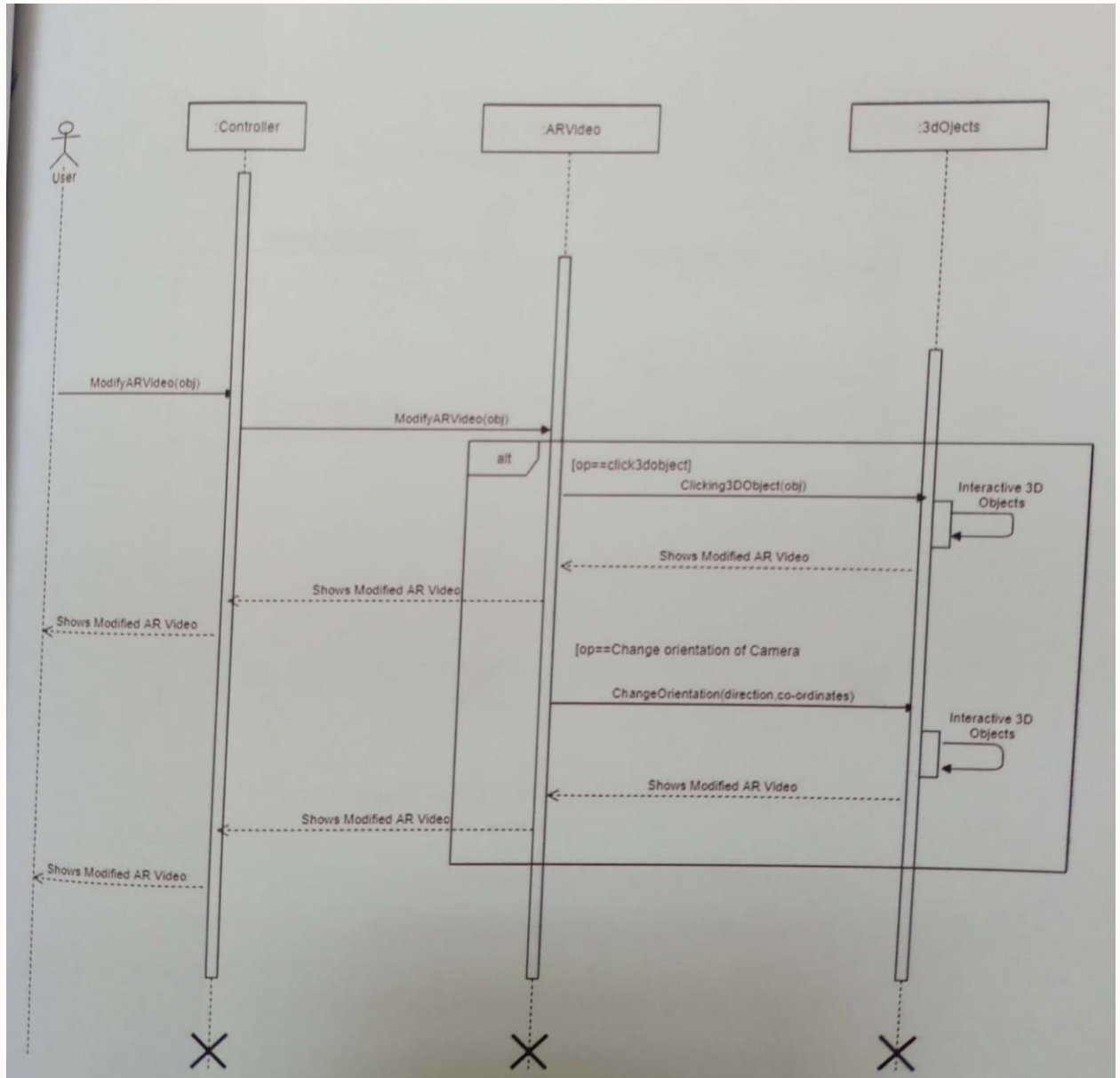
SD-1: View Product in AR View



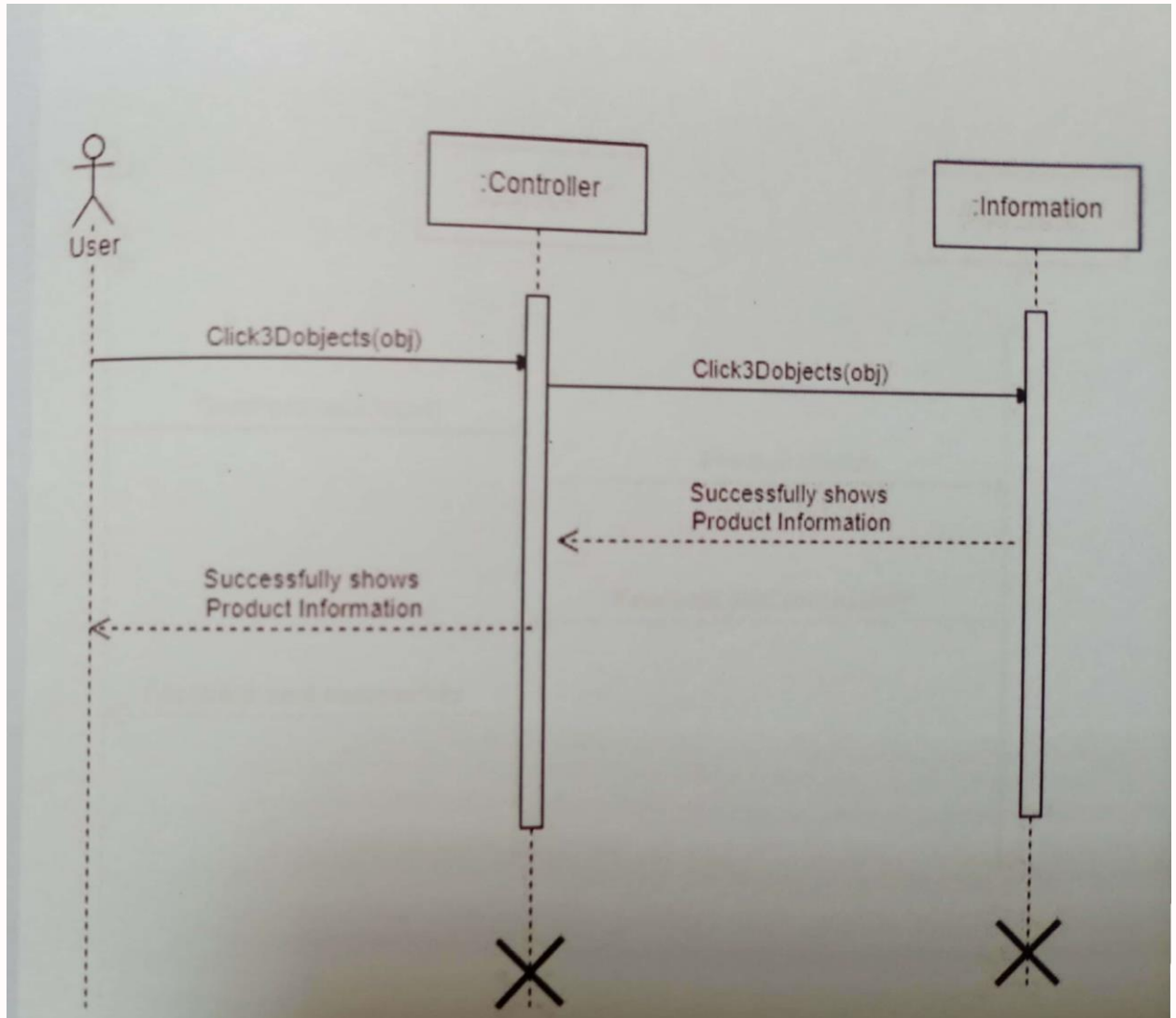
SD-2: Scan the Product



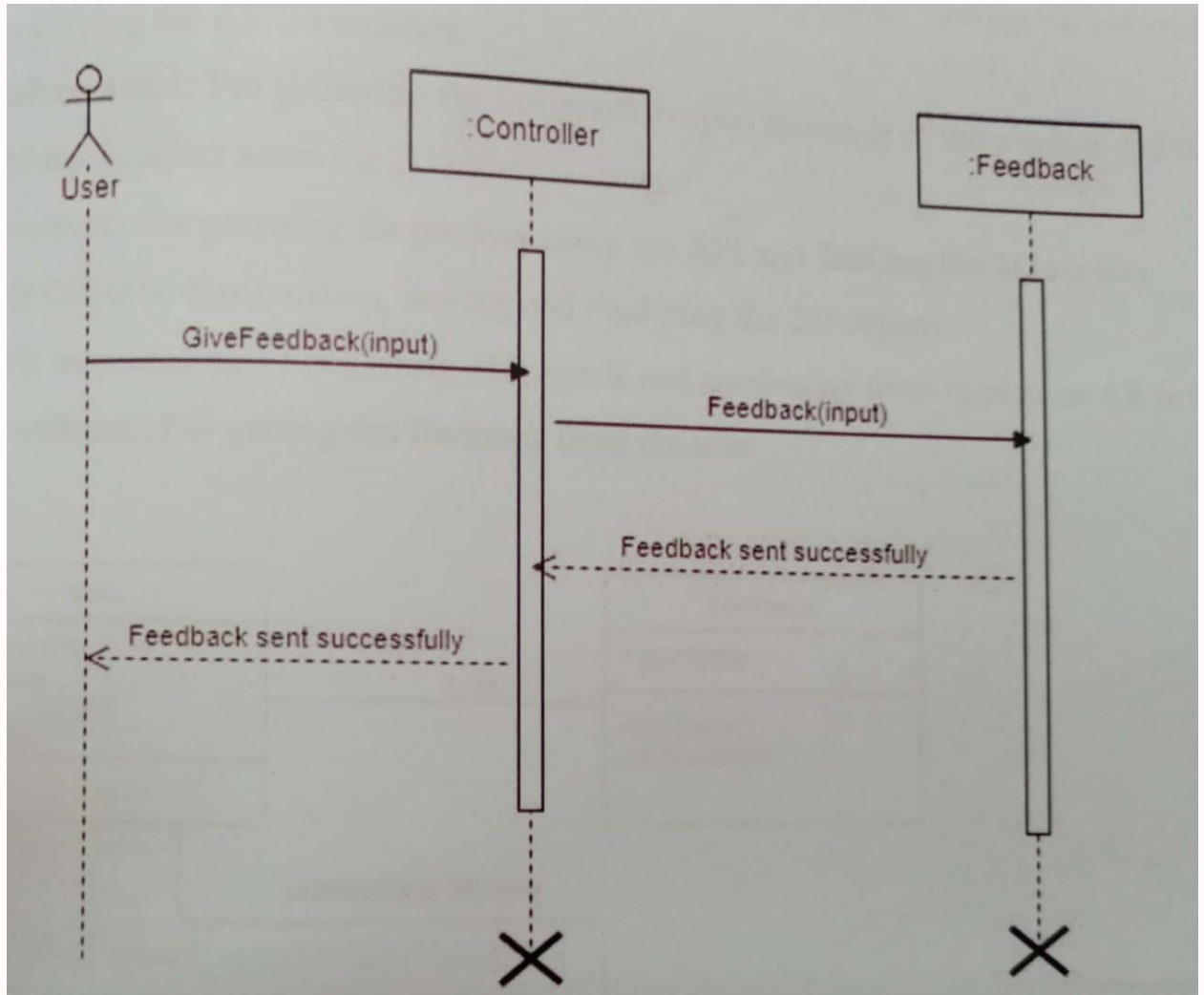
SD-3: Modify AR Information



SD-4: View Product Information



SD-5: Feedback



16. Class Diagram

