

THE SUPERIOR COLLEGE LAHORE



Faculty of Computer Science & IT

Final Year Project PROJECT REPORT

[Image editing Application]

Project ID: [FYP-BSCS-F18-50]

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Project Report

[PicStock]

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HEAD OF THE DEPARTMENT

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Date: _____ Signature: _____

Dedication

This project is dedicated to our parents whose proficient guidance and splendid inspiration had positively influenced our lives and made us capable of attaining this degree successfully.

Acknowledgements

In the name of ALLAH, the most beneficent and merciful who us the opportunity and courage to complete this project successfully and helping us in each and every step of the way. We would like to acknowledge the efforts of all those people who have been involved one way or the other in completion of our project.

We would like to express our gratitude to our very supportive and helpful internal adviser **Dr Arfan Jaffar** who guided and encouraged us in carrying out this project work and everything that we needed to know about project studies throughout the project.

We are also thankful to our family for having faith in us and providing us with all the support and good wishes and for always taking our side whenever we needed them the most. Finally, we would like to thank our prestigious **Superior University** that gave us the opportunity, confidence and guidance for the successful accomplishment of our project.

Executive Summary

There are a lot of reasons to edit your photos. For most people, the biggest reason is to fix a mistake. Let's say you took a great photo but there was some dirt on your photo. Now you have a dark spot on your photo. With your editing application, you can go back to cover up that dark spot. Also, your photo may seem kind of dark. You can easily lighten a photo by changing the "brightness" level. Now your photo is flawless! Another reason you might edit your photo is to produce artistic effects. For example, maybe your image seems a little "busy". This might mean using what's called a "blur" effect to create a point of focus that draws the eye in. For instance, if you have a photo of a bunch of fall leaves on the grass, but they're all in focus and it seems distracting, you can use the blur feature to blur out some of the leaves, which is essentially changing the "depth-of-field" of your photo. You are creating a shorter depth-of-field and focusing on just one area of the image, which creates something with an entirely different feel. With your photo editing application, you can reveal the true potential of your photos. Using the skills you'll learn in this project, you'll be able to manipulate your pictures any way you like, bringing colours to life, making focus that much sharper. All you need is to install our application from App store and enjoy amazing features. Let's get started!

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Chapter 1

Introduction

Chapter 1: Introduction

The mobile technology started as a remarkable achievement in the world of technology but now, it is transforming into user comfort technology.

The mobile technology is capable of downloading a number of applications from play-store and hence increases the use and functionality of mobile phone. In this section we are declared the scope and objective goals for this application. People now a days go outside and capture the best moments and save on their cell phones. But All within limited functionality we provide some cool new features in this app which enhance the user experience and getting more results instead exiting apps.

.1. Background

Now-a-days mobile technology is flourishing in every field of life, and any software product Aiming to rise and shine tends to develop a mobile app. “We all consider that mobile is one of The most powerful tools at our disposal and plays a pivotal role in society. However, in The beginning mobile phone was only used for calling and text messaging. But now most of the activities of our daily life i.e. GPS navigation, internet browsing, Capturing best Picture, instant messaging tool Snapchat, Instagram. people now a days are too much involving to save their best moments. We designed the application where people can easily capture the picture and apply the desired filter to make it beautiful. We have introduced the voice recognition functionality which is unique among all the apps and user can enjoy the music while editing the image.

.2. Motivations and Challenges

From the past years, editing apps have revolution in mobile apps Era. Everyone have desire to look beautiful and prominent. But not every app give you your desired results.

- The major benefit of this application is to capture image on which you can apply different, filters and you can edit the pictures by calling the Effects.

- This project helps its potential audience in multiple disciplines of life like entertainment, advertisement etc. by providing them view of their concept.
- The blend of multiple techniques like voice recognition, image capturing, Editing, playing your sound tracks.

.3. Goals and Objectives

Think and plan before editing photos for this you have a basic working knowledge of digital photo editing. Edit good photos into great photos. Create visually interesting photos of people, places and things feel comfortable experimenting with their editing skills to improve photos. Tell photo stories in an interesting and engaging way. Challenge themselves with a variety of photo editing techniques and applying different effects identify editing techniques that have been applied to photos. Along with Applying different type or techniques you have also cool features like voice recognition system with background sound track playing.

.4. Literature Review/Existing Solutions

We have a lot of competitor in this particular domain some of them are Superimpose X, Lens Distortions, after light 2 etc. What we are doing different we have two cool features of voice recognition system in our application and background music track. You can call the clip parts by our voice and use them on your image and play the music track in background while using this application.

.5. Gap Analysis

Gap analysis is the technique to identify the area of improvement in any process ranging from Business to technology. The areas of improvement don't necessarily mean any new enhancement, it is either about finding a gap between what is expected and what is really done.

The feature we are introducing are unique one can use these feature in these kind of applications. These features make the application much more attractive to user.

.6. Proposed Solution

Now a day's we find different application with different functionality. We come with some cool features of voice recognition in which you get the desire objects with your voice and apply it on your image. We also add a variety of sound track that can be played in background that user cannot getting bored while editing the image.

.7. Project Plan

Phases	Description of Work	Start and End Dates
Phase One	UI Design	2 Months
Phase Two	Coding	3 Months

.7.1. Work Breakdown Structure

- **Project Management**
 - .1. Work Breakdown Structure (WBS)
 - .2. Roles & Responsibility Matrix
 - .3. Change Control System
- **Reports / Documentation**
 - .1. Final Documentation Introduction

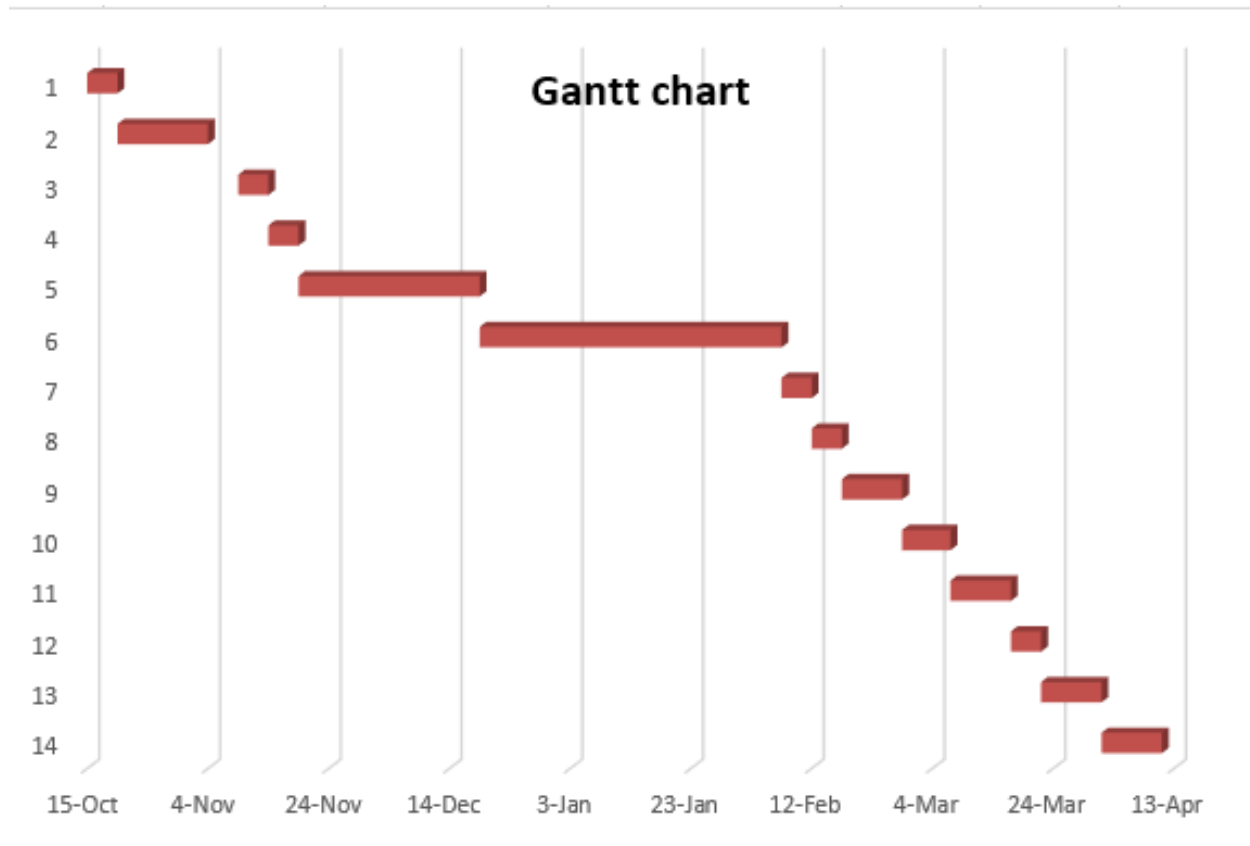
- .2. Literature / Markey Survey
- .3. Requirements Analysis
- .4. System Design
- .5. Implementation
- .6. Testing & Performance Evaluation
- .7. Conclusion & Outlook
- .8. End User Documentation
- .9. Application Administration Documentation
- .10. System Administrator Documentation

- **System**

- .1. Development Environment
 - .1.1. IDE
 - .1.2. Version Control
 - .1.3. Server
- .2. Presentation Layer
 - .2.1. Wireframes
 - .2.2. UI Design
- .3. Business Logic Layer
 - .3.1. ER Diagram
 - .3.2. Database Design & Implementation
- .4. Data Management Layer
 - .4.1. Server Side Scripting
 - .4.2. Front End Integration
- .5. Physical Layer
 - .5.1. Deployment on Test Server
 - .5.2. Testing & Bug Fixing
 - .5.3. Deployment on Production Server
- .5.4. Roles & Responsibility Matrix**

WBS#	WBS Deliverable	Activity	Duration (# of Days)	Responsible Team Member(s) & Role(s)
1.1	Requirement Gathering	1	05	All of us
1.2	Requirement Analyse + Documentation	2	15	Arslan Raza
2.1	Project Planning	3	05	All of us
2.2	General Management	4	05	Waheed Shafi
3.1	UX-UI Design	5	30	Arslan Raza
3.2	Coding	6	50	Arslan Raza
4.1	Test Plans	7	05	Waheed Shafi
4.2	Test Cases	8	05	Waheed Shafi
4.3	Testing	9	10	Arslan Raza
4.4	Bug Fixing	10	08	Arslan Raza
4.5	Final Testing	11	10	All of us
5.1	Deployment	12	05	All of us
5.2	Training	13	10	All of us
5.3	Support	14	10	All of us

.5.5. Gantt Chart



.6. Report Outline

A. Introduction

- What we are going to do?
- Background
 - What currently happening in the market
- Motivation & Challenges
 - Discussed in detail
- Goals and Objectives
 - Discussed how to achieve our goals.
- Existing System
 - Discussed what unique we are having, how could survive in a market
- Gap Analysis
 - Discussed Gap Analysis & Discussed what is our planned strategy?
- Proposed Solution
 - Discussed the solutions of the problems
- Project Plan
 - Made a project plan so we could complete our project in a time.
- Work Breakdown Structure
 - Discussed in detail
- Rules & Responsibility
 - Divided task in team members
- Gantt Chart
 - Made a chart so could complete our project in a time.

Chapter 2

Software Requirement Specifications

Chapter 2: Software Requirement Specifications

.1. Introduction

.1.1. Purpose

The purpose of this document is to make the functional requirements of the project on an Image Editing Application easy to understand. It also serves the purpose of making the functionality clear to the users. The reader is expected to have knowledge of Image Editing Application to be able to understand the document.

.1.2. Document Conventions

This document uses the following conventions.

Xcode: Swift 4.2

.1.3. Intended Audience and Reading Suggestions

This document is for developer, project manager and for our users. In this document we defined the task and assign to them. We are providing facility to our users; they can easily edit their image by using different features provided by us and save in their mobile.

.1.4. Product Scope

As we all know that smart phones have evolved in years and so their in-built camera features. Now, you don't need to carry a camera with you, you can click perfect pictures with your smart phones. But there are times when capture from your phone doesn't turned out to be right. The photo editing apps are the solution for this. You can edit your photos or may add filters to make it picture perfect.

This app has a great set of basic photo editing tools, such as exposure, colour, sharpening and cropping. You can also make selective adjustments and remove unwanted object's etc. Creative filters allow you to enhance or change the mood of your images. Our application is not similar

to all other applications we use strong voice recognition system in it. We use this unique idea no one use this in image editing application before.

.1.5. References

<https://krazytech.com/projects>

.2. Overall Description

.2.1. Product Perspective

The product is supposed to be a client base. It is an IOS based system implementing client based model. This editing application provides simple mechanism for users to edit, save and share their images knowledge.

- Single platform support: Offers operating support for IOS operating system.
- Filters and brightness: The system allows the user to Britten his image and apply different filter on them.
- Sound tracks: The system allows the user to play the sound tracks in the background while editing the image.
- Voice recognition: This feature allows the user to add the images by their voice and use them on their images.

.2.2. Product Functions

The following list of function descriptions explains the major features

Capture Image

This feature allows us to capture the image directly from camera.

Edit image

Image edit function allows the user to edit the image by applying different feature on it.

Voice Recognition

Voice recognition system allows calling the object by voice and using them on their images.

Background tracks

By this feature user play the sound track or music track in background while editing the image and enjoy the music also.

Save image

After editing the image the use can save the image in their mobile we also allow them to save image in the application gallery.

.2.3. User Classes and Characteristics

The system will support one type of user privilege only user. User will have access to all the function and feature in the application.

- Edit the image
- Save the image
- Share the image
- Play the sound tracks.

.2.4. Operating Environment

To run this application user must have IOS operating system. We are using **Macintosh** operating system. The compiler on which the app is developing is **Xcode** version 9.2. User need IOS device to run this Application.

.2.5. Design and Implementation Constraints

- We should follow the IEEE standards.
- Default Language will be English.

- Project will follow all the copyright and cyber laws of PTA (Pakistan Telecommunication Authority).

.2.6. User Documentation

Users of the website must know how to navigate in a Application.

- We will provide help-line for customer support through dialog box.
- We will make a blog for online help for the customers.
- **Description Document:** This application is for editing the images by using different features and by filters to look handsome and share these images online on their accounts and also save them in their mobile gallery.
- **Installation:** User simply get this app on App store and get this app it will install automatically.
- **Configuration:** The application configures automatically it just ask for some feature to enable them for access.
- **User Manual:** Guidance is provides on application who to use its features.
- **Reference:** To use the application the references are provided by dialog boxes that what action is performed by select feature.

.2.7. Assumptions and Dependencies

Application is only accessible without Internet but images share on different accounts by connecting with internet it is assumed that the end user has a connection to the Internet. It is also assumed that the user has required operating system to access the application. (IOS)

.3. External Interface Requirements

.3.1. User Interfaces

- Front-end software: Swift
- Back-end software: Swift

.1.1. Hardware Interfaces

- IOS
- iPhone which have support of IOS

.1.1. Software Interfaces

Operating system: We have chosen Macintosh operating system for its best support and user friendliness.

Swift: To implement the project we have chosen Swift language for its more interactive support.

.1.2. Communications Interfaces

This project supports all model of iPhone which have support from IOS.

.2. System Features

.2.1. System Feature 1

App developers also need to consider the range of screen sizes between the small 'compact' and 'mini' phones and the larger tablets. So we built the Responsive Design for Varying Screen sizes for all versions. For Social Networking Capabilities we allow the

user to share his images on his different social media accounts. This make easy and seamless by incorporating social sharing directly from the app.

.2.1.1. Description and Priority

- **Save image**

After editing the image, the use can save the image in their mobile we also allow them to Save image in the application gallery.

- **Share image on social media**

You can share the image on different accounts on social media after editing your image.

- **Save image on app memory**

After editing your image, you can also save your image in application memory.

.1.1.1. Stimulus/Response Sequences

Camera

Stimulus: User clicks on Camera

Response: Camera screen is displayed

Edit

Stimulus: User click on edit option

Response: Edit screen is displayed

Stimulus: User select image from gallery or from camera

Response: Image is set on screen for edit

Save

Stimulus: After edit user click on save button

Response: Image is save in gallery

.1.1.2. Functional Requirements

Capture Image

This feature allows us to capture the image directly from camera.

Edit image

Image edit function allows the user to edit the image by applying different feature on it.

Voice Recognition

Voice recognition system allows calling the object by voice and using them on them

Background tracks

By this feature user play the sound track or music track in background while editing the Image and enjoy the music also.

Save image

After editing the image, the use can save the image in their mobile we also allow them to Save image in the application gallery.

Save image on app memory

After editing your image, you can also save your image in application memory.

.1.2. System Feature 2

User shall be able to add the Image to canvas and edit the image by using different features provided by our application.

User shall be able to play the audio track in the background while editing the image.

User shall be able to save the image in gallery after completion of editing process.

User can also get the object by using microphone to set then on the image.

.2. Other Nonfunctional Requirements**.2.1. Performance Requirements**

The application will available in minimum down-time. The application should provide user with appropriate error messages and should handle run-time exceptions in a controlled manner in

order to avoid abnormal terminations. The response should not be more than five second if users have a proper internet connection.

.2.2. Safety Requirements

We are using local database provided by IOS to store the edited image in our application that's what we don't need extra features and function for the safety of data or application.

.2.3. Security Requirements

The application is secure because image edit by users are save in there mobile so no can attack on user data.

.2.4. Software Quality Attributes

- **Availability:** Information should be available on time so user would able to access.
- **Correctness:** Correct item and features should display.
- **Maintainability:** The administrators should be maintained and update the application timely.
- **Usability:** Should satisfy customers need.
- **Efficiency:** The system shall provide the right tools to support all its features.

.2.5. Business Rules

<List any operating principles about the product, such as which individuals or roles can perform which functions under specific circumstances. These are not functional requirements in themselves, but they may imply certain functional requirements to enforce the rules.>

.3. Other Requirements

All the requirements are described in above statements.

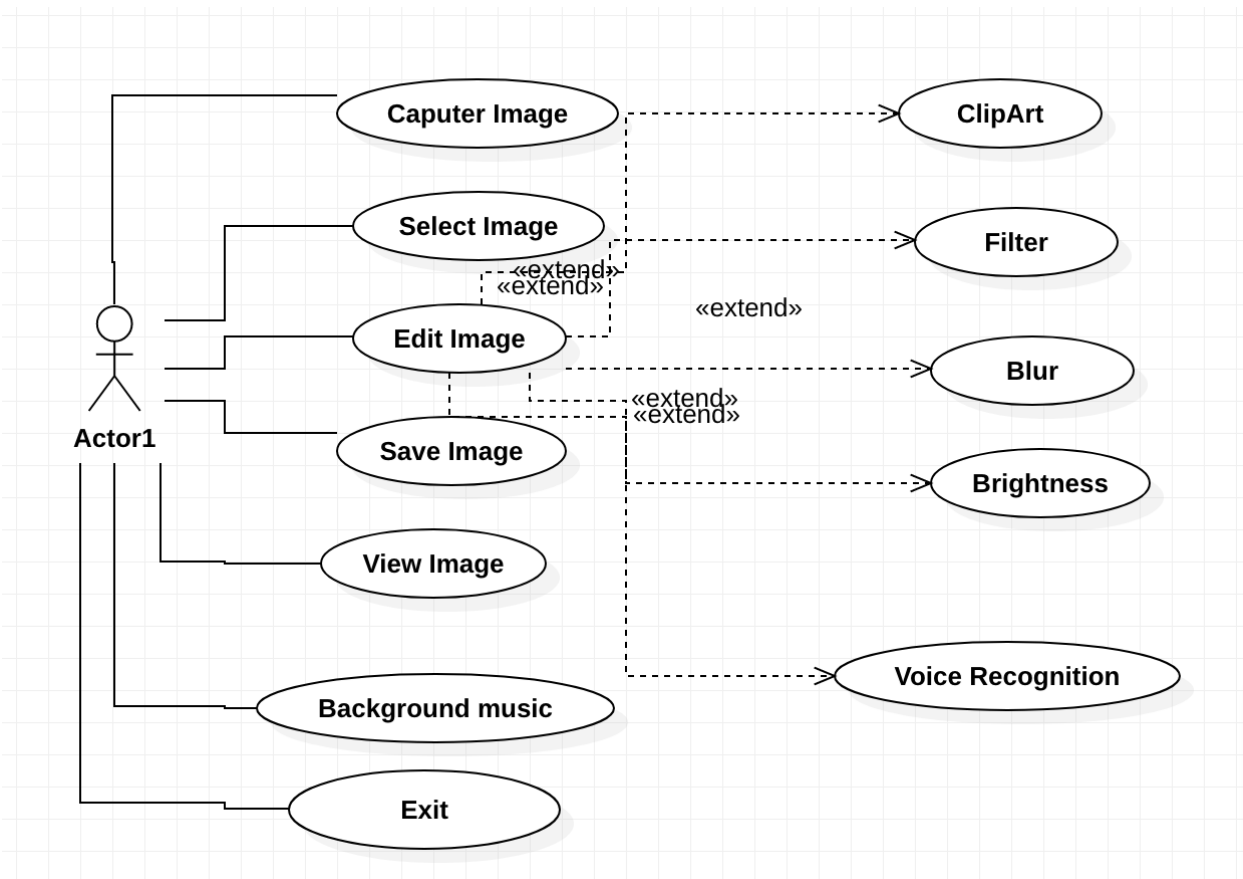
Chapter 3

Use Case Analysis

Chapter 3: System Analysis

Creating Use Cases to describing the whole scenario how it is going to work. Describing actors & there purposes. How users will use capture the image. And users can edit the image is by using different features and save the image. User can play the background track while editing the image. User can share the image on different social media accounts and also save the image in mobile and in the gallery of application.

3.1. Use Case Model



3.2. Use Case Descriptions

Fully Address use case

Use Case Name	Select image
Scope	Compulsory for user to select image first then start to edit image.
Primary Actor	User
Secondary Actor	
Pre-Conditions	Application must be working properly
Post-Conditions	Image is selected successfully
Main Scenario	When user want to select image the image is selected and set to screen successfully.
Extension	If the image is not select successfully.
Special Requirement	When user wants to select image the image in gallery should be exists.
Frequency of Occurrence	

Edit Image

Use Case Name	Edit Image
Scope	Compulsory for user to select image first then start to edit image.
Primary Actor	User
Secondary Actor	
Pre-Conditions	For edit image must be selected first.
Post-Conditions	Image is selected successfully.
Main Scenario	When the desired image is edit.
Extension	If the image is not select successfully.
Special Requirement	When user wants to select image the image should be exists in gallery.
Frequency of Occurrence	

Play Music

Use Case Name	Play Music
Scope	Background music functionality is available in our project.
Primary Actor	User
Secondary Actor	
Pre-Conditions	Song is selected to play on background.
Post-Conditions	Song play successfully in background.
Main Scenario	When user wants to play music in background while editing the image.
Extension	If the song is not played then it is means app is not running properly in your mobile.
Special Requirement	User can select one song at a time.
Frequency of Occurrence	

View Image

Use Case Name	View Image
Scope	After edit the image user can save the image locally in application.
Primary Actor	User
Secondary Actor	
Pre-Conditions	To view image you have to save the image after editing.
Post-Conditions	Image saved and view successfully.
Main Scenario	User can save and view the image locally from the application.
Extension	If the song is not played then it is means app is not running properly in your mobile.
Special Requirement	User can select one song at a time.
Frequency of Occurrence	

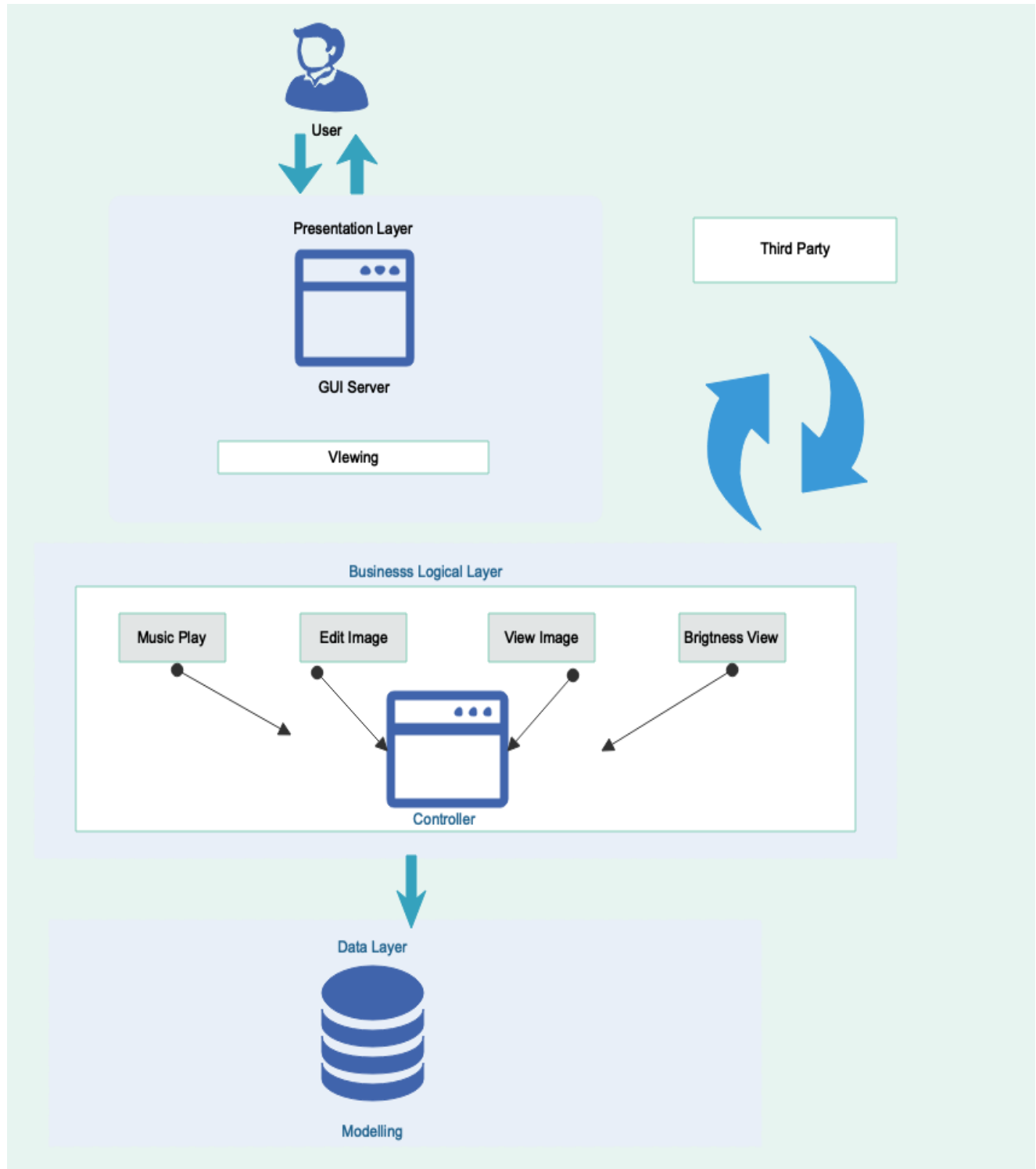
Chapter 4

System Design

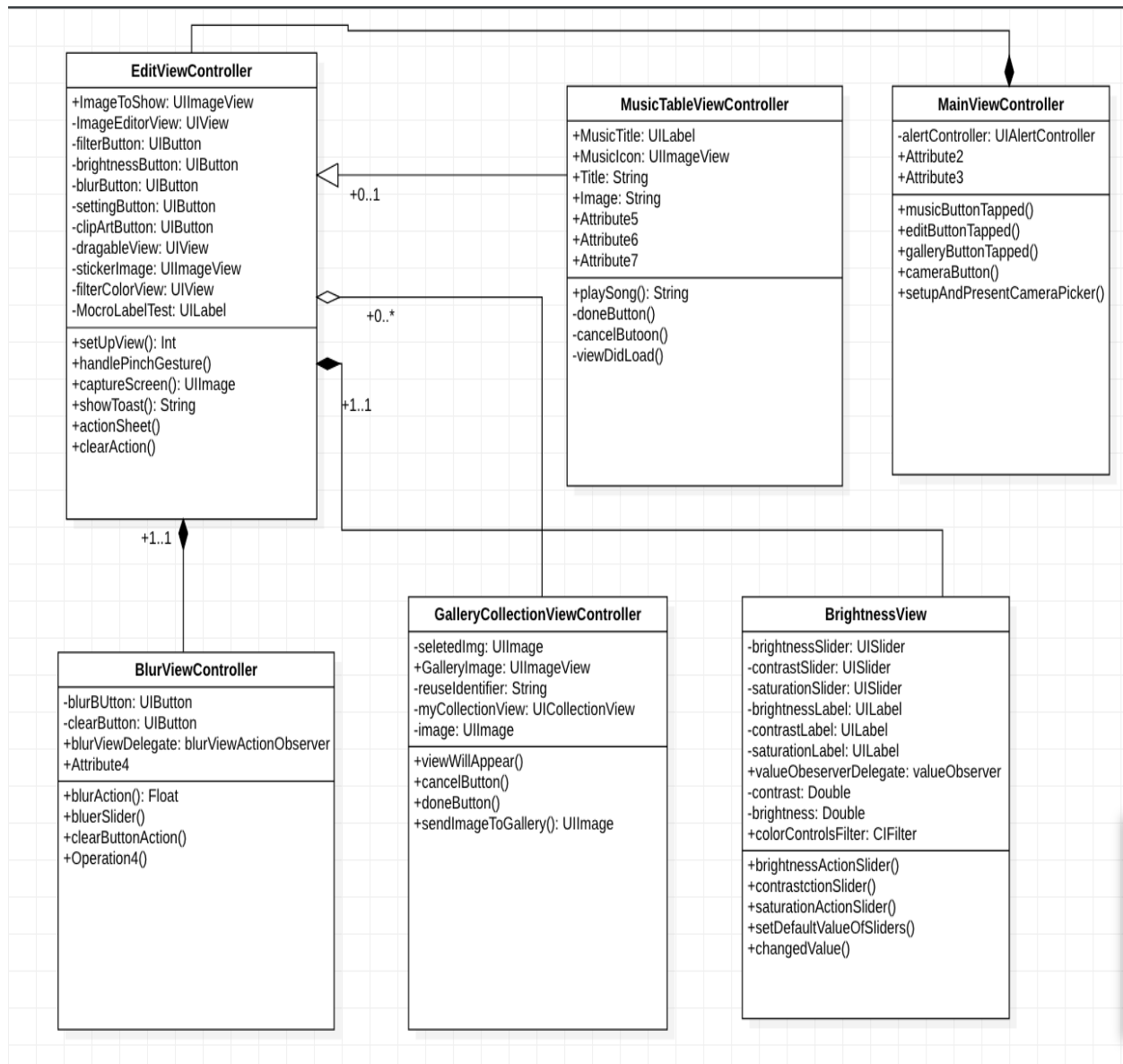
Chapter 4: System Design

We are designing the whole system conceptually, just to clear out how our system will look like. We have made different diagrams, different designs, Model, ER- Diagram to see how our system will work& how we will manage it.

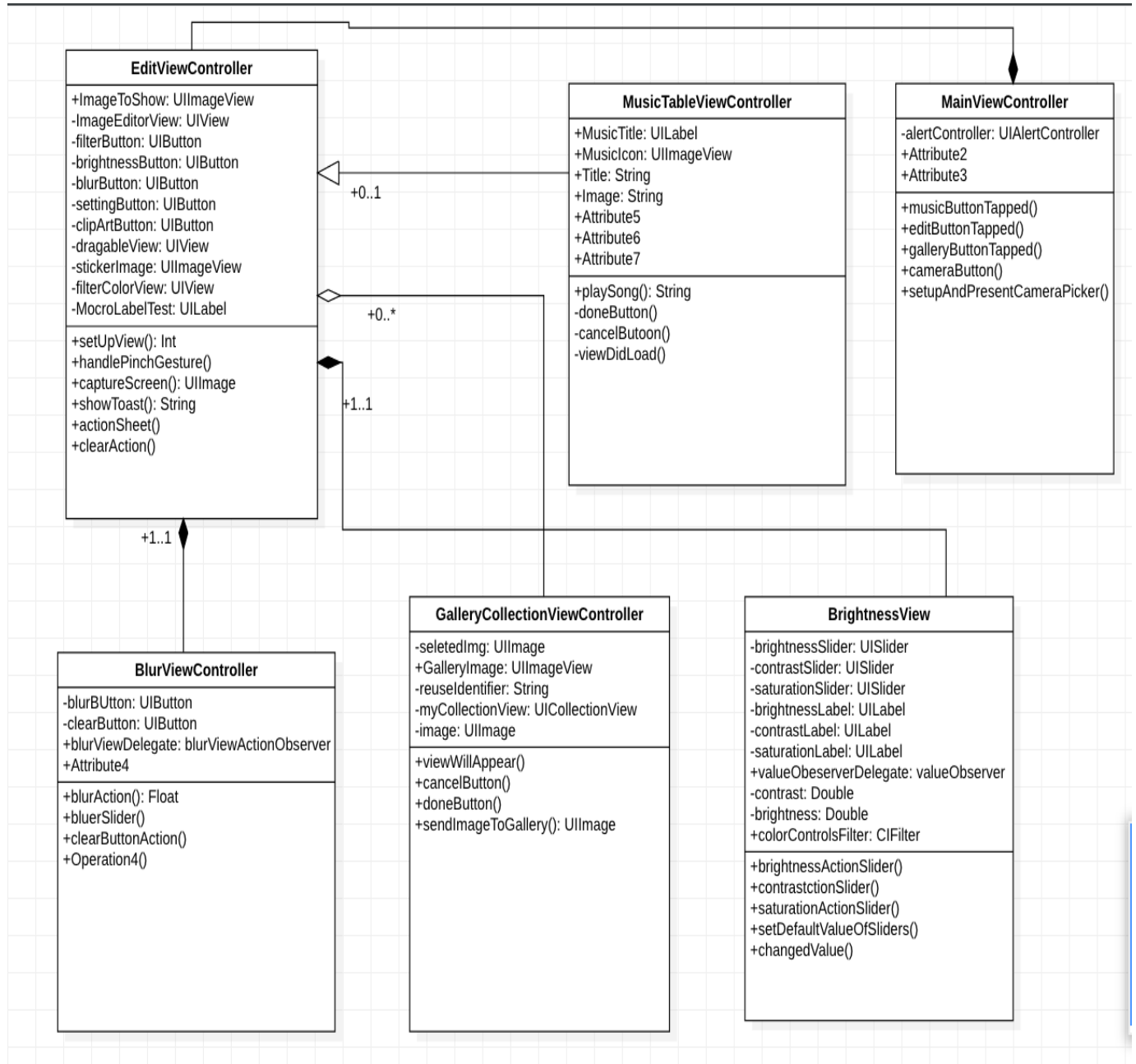
4.1. Architecture Diagram



4.2. Domain Model

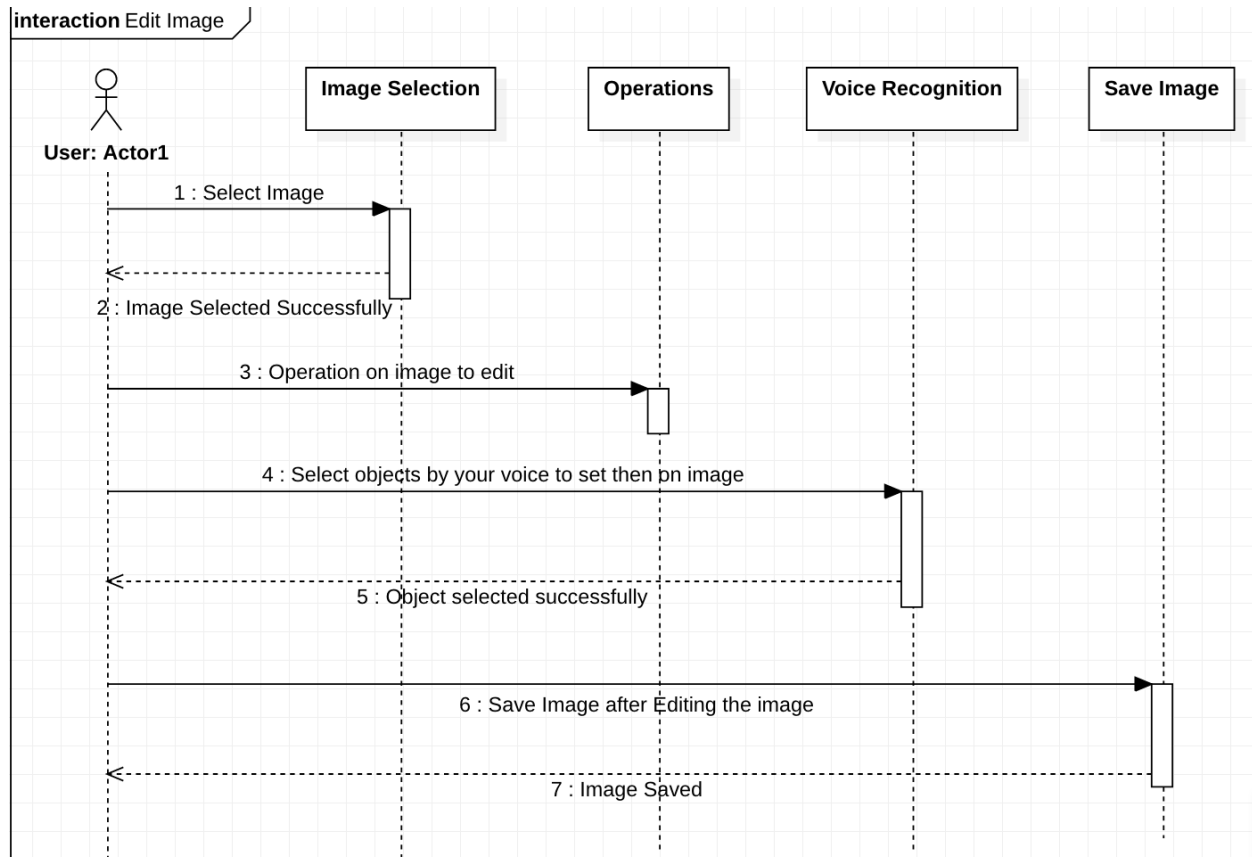


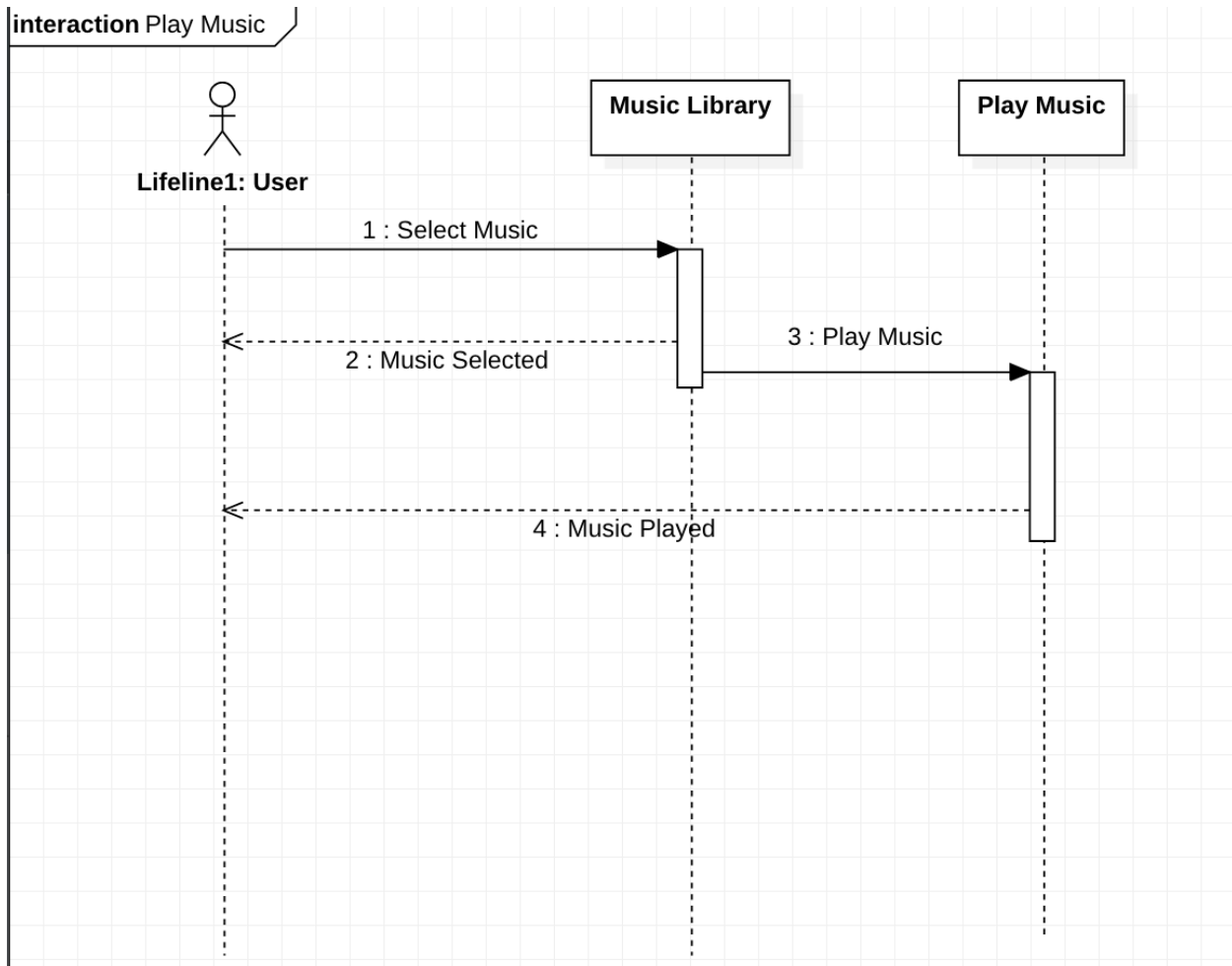
4.3. Class Diagram

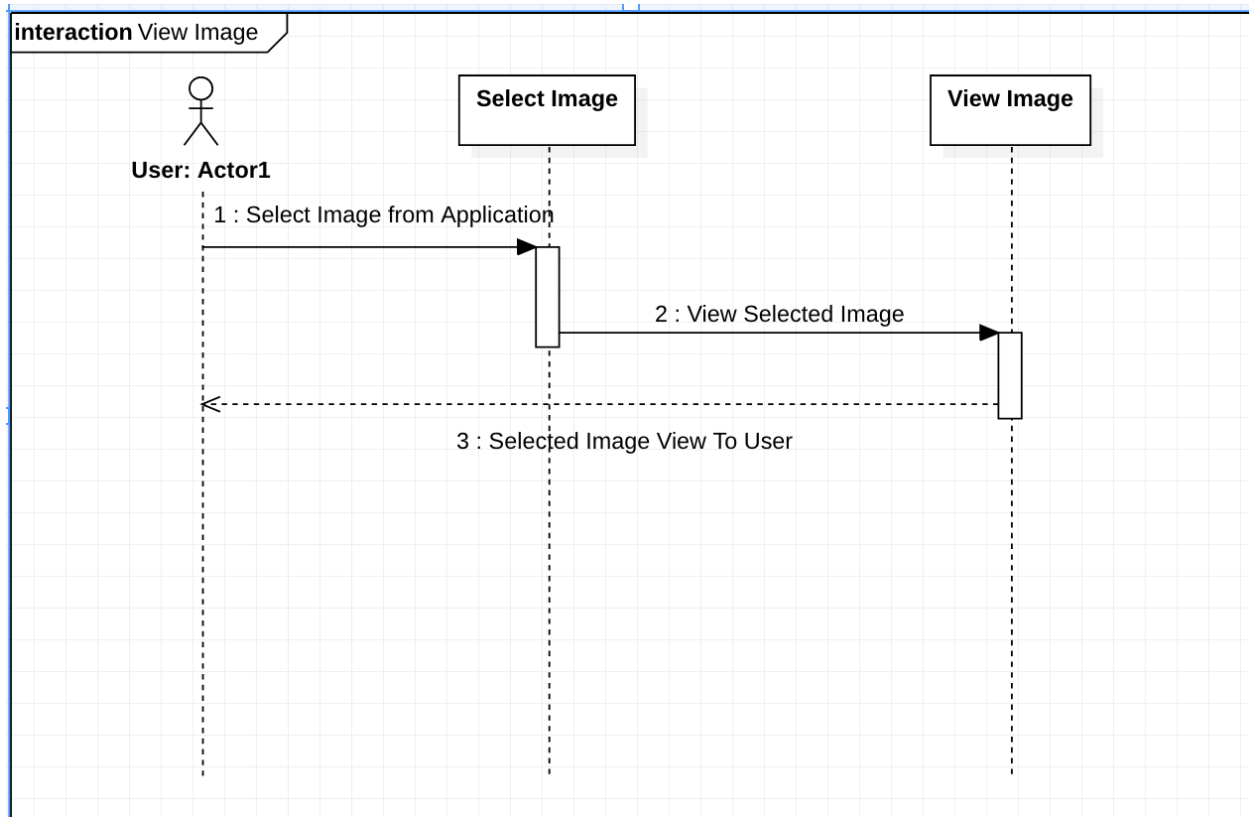


4.4. Sequence / Collaboration Diagram

Edit Image Sequence Diagram:



Music Play Sequence Diagram:

View Image:

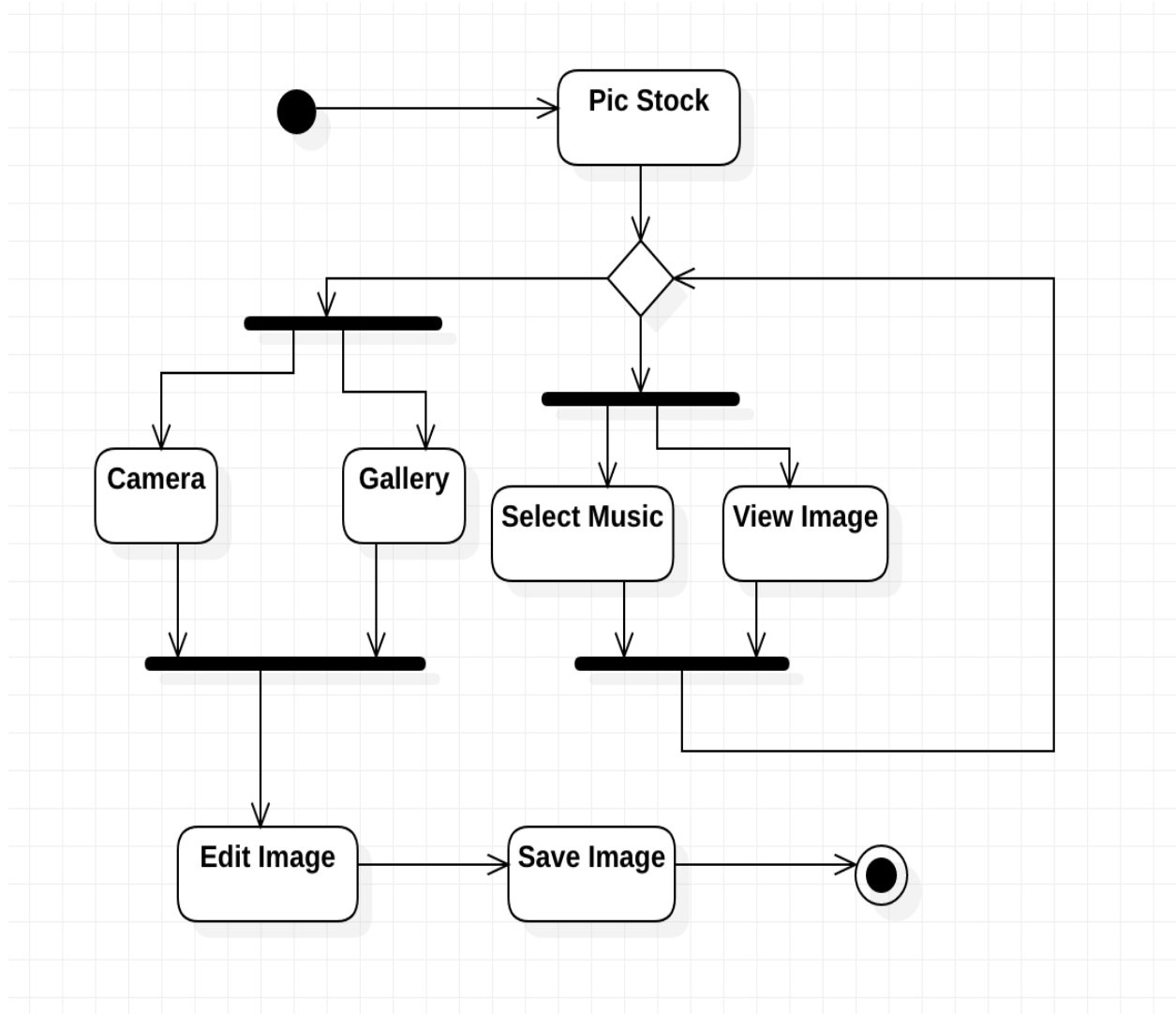
4.5. Operation contracts

Use Case	Edit Image
Actor	User
Purpose	Edit the image
Overview	The user select image and operation for edit image.
Pre-Condition	The image must be selected first to edit the image.
Post-Condition	The image edit successfully.

Actor Action	System Response
User select the image to edit	System will take that image and set in canvas.
User will perform operation to edit the image	System will apply change on image performed by user.
User will complete the edit process.	

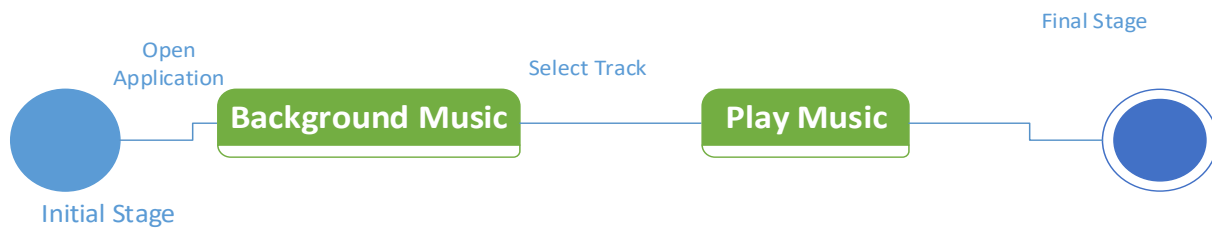
Use Case	Edit Image
Actor	User
Purpose	Edit the image
Overview	The user select image and operation for edit image.
Pre-Condition	The image must be selected first to edit the image.
Post-Condition	The image edit successfully.

4.6. Activity Diagram

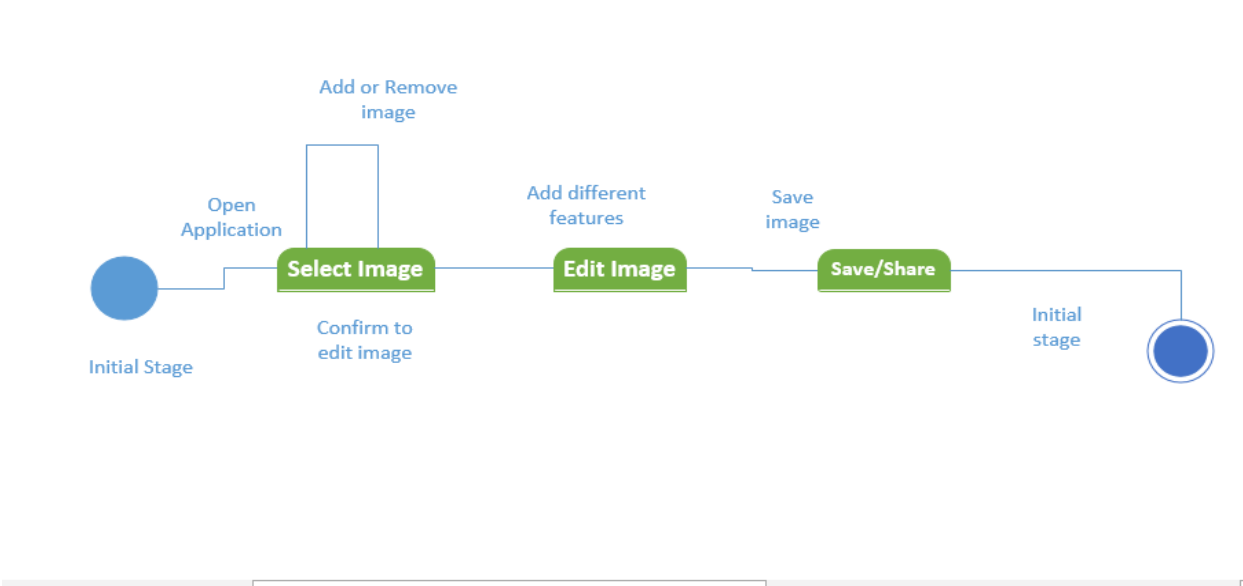


4.7. State Transition Diagram

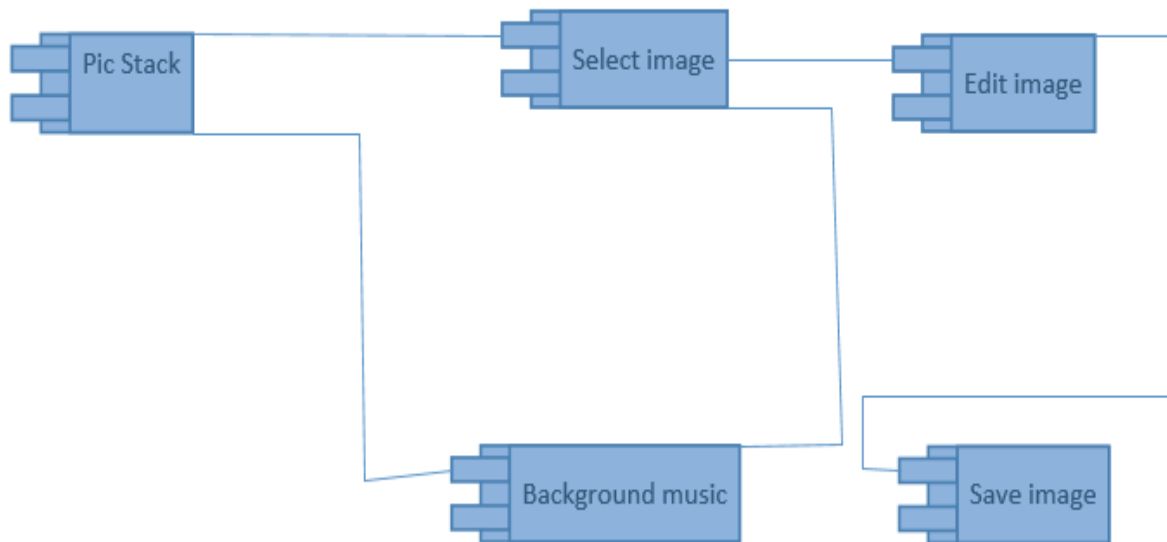
State Diagram of music track



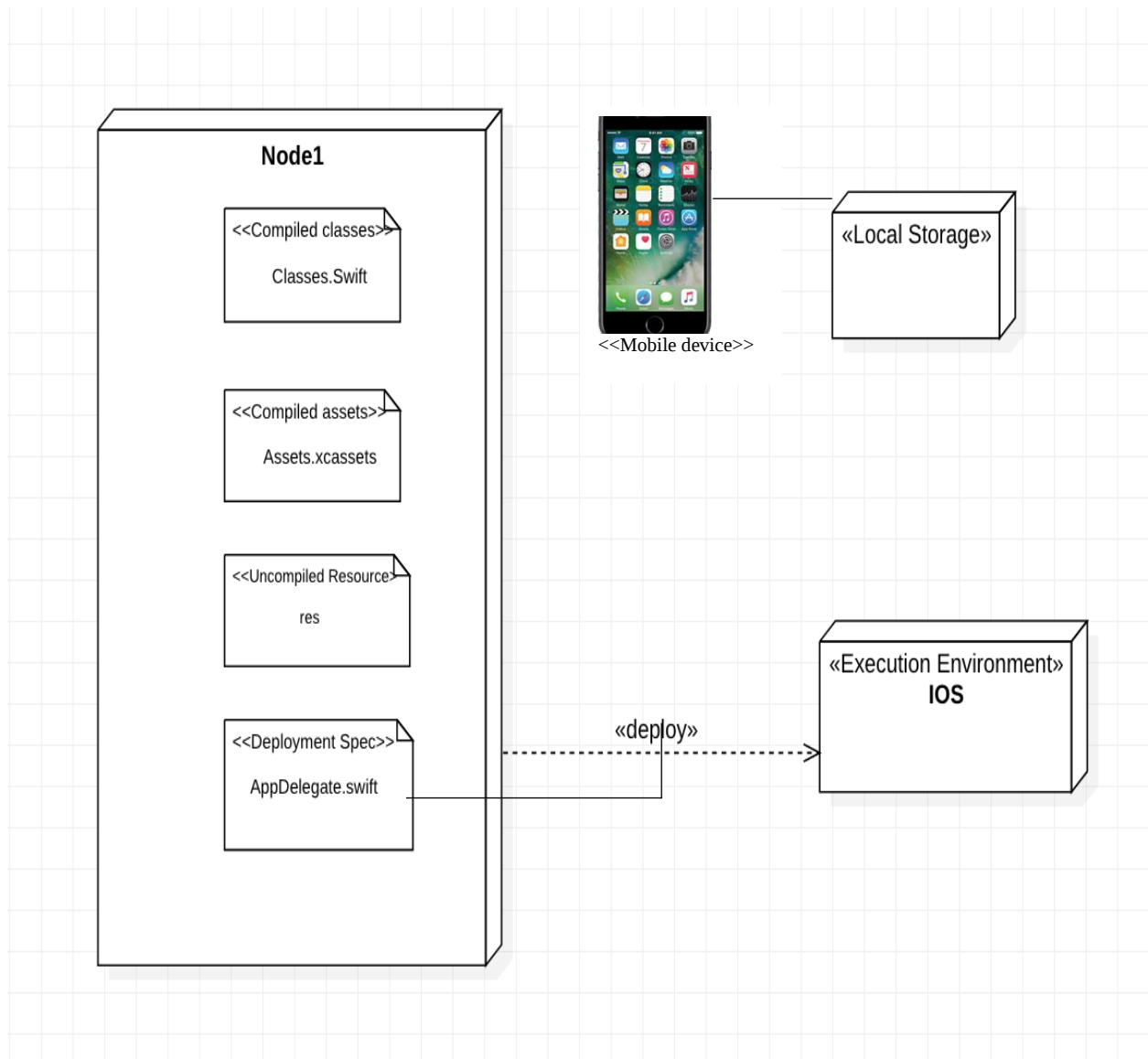
State diagram of edit image



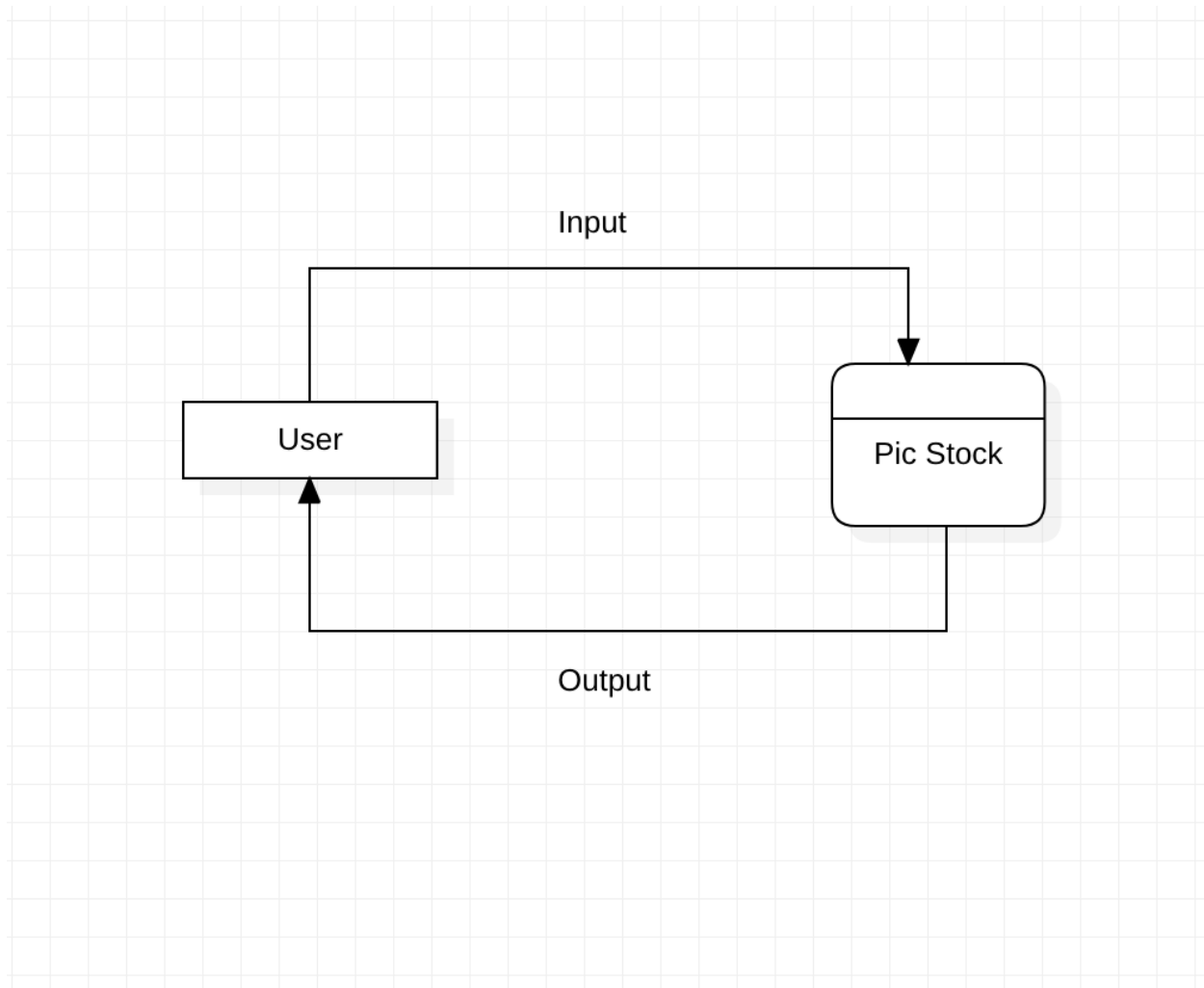
4.8. Component Diagram

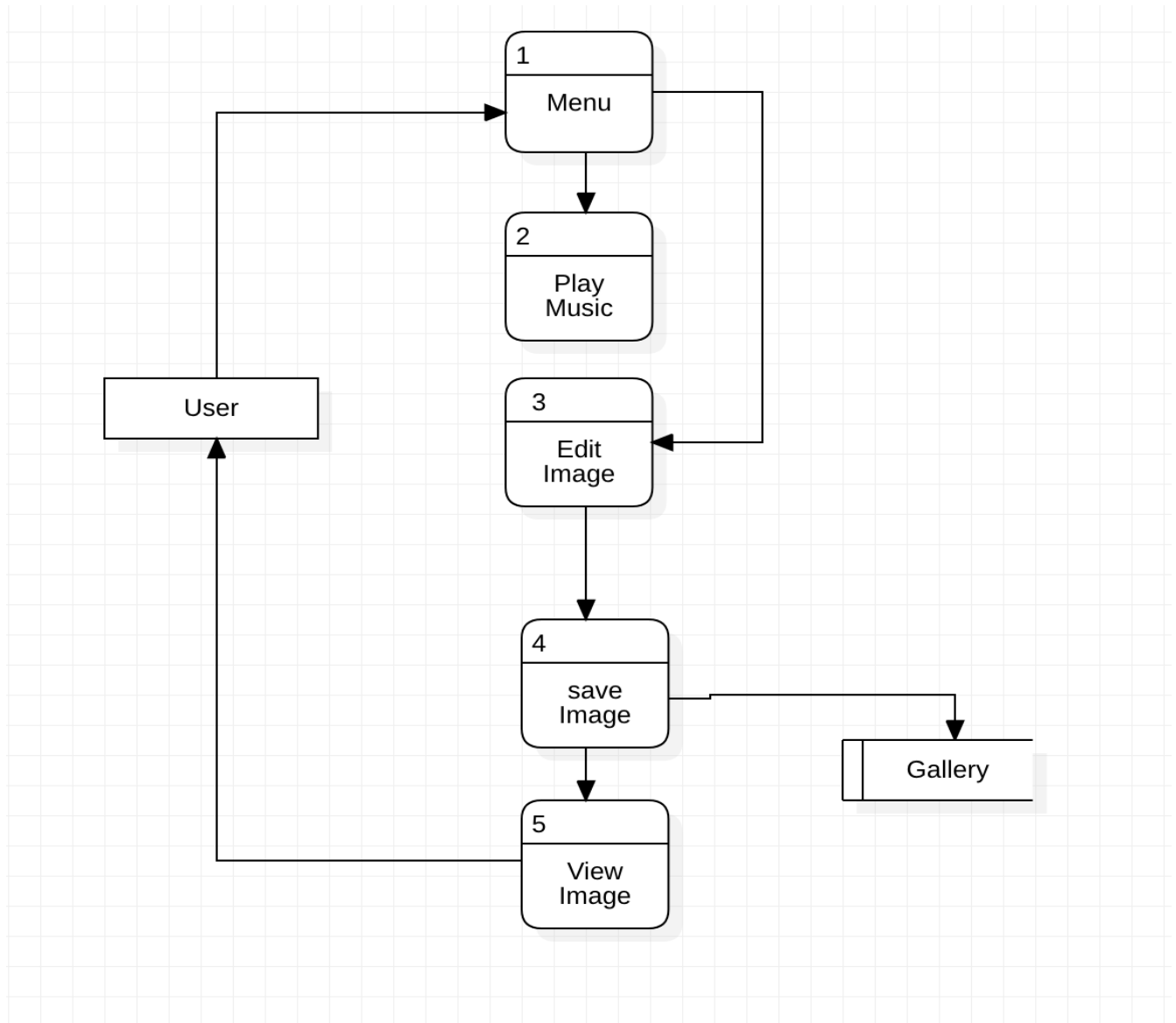


4.9. Deployment Diagram



4.10. Data Flow diagram



Level 1

Chapter 5

Implementation

Chapter 5: Implementation

After defining the whole System design we are going to see how we will implement it, which types of tools & techniques that we are using to make it, which language is required for our application & which type of standards we should follow while coding.

5.1. Important Flow Control/Pseudo codes

Diagram shows the whole process of our working system in different steps. If a user wants to edit the image, he should capture or select the image. Then move to edit phase he decorate his image by clip parts by using filter etc. User can also get the object by voice and use them on image. He can also play the music track in background.

5.2. Components, Libraries, Web Services and stubs

Libraries:

- We use different libraries as for our requirement for example library for voice recognition.

Components:

- We use native components of Xcode for UI components for buttons.

5.3. Deployment Environment

Application can be operating on any version iPhone which is not deprecated.

Application is available free of cost and can be download by any user.

5.4. Tools and Techniques

Following tools and techniques are used to develop the application.

Xcode is platform to develop the iPhone Application that we are using in our project.

Swift is language that we are using in this platform

5.5. Best Practices / Coding Standards

- Communicate with all project stakeholders
- Create a risk response team
- Use a detailed work definition document
- Create a detailed work plan
- Document everything
- Ask for feedback
- Communicate the impact of project add-ons
- Manage new agreements
- Hold a wrap-up meeting

- Write readable yet efficient code

- We Write comments and documentation

- We provide Use helper methods

5.6. Version Control

Task #	Deliverable	Activity #	Duration (# of Days)	Responsible Team Member(s) & Role(s)
1	UI Design	1	1 Months	Front end designing Arslan Raza
2	Backend Coding	2	2.5 Month	Manage backend coding Arslan Raza
3	Final Version	3	15 days	Managed by Arslan Raza

Chapter 6

Testing and Evaluation

Chapter 6: Testing and Evaluation

Test & Evaluation (T&E) is the process by which a system or components are compared against requirements and specifications through testing. The results are evaluated to assess progress of design, performance, supportability, etc. Developmental test and evaluation (DT&E) is an engineering tool used to reduce risk throughout the acquisition cycle. Operational test and evaluation (OT&E) is the actual or simulated employment, by typical users, of a system under realistic operational conditions.

6.1. Use Case Testing

Test Case Suite	TS002
Test Case id	TC001
Test Case summary	To check image picker and the extension of image
Related Requirement	User should be pick a image for further processing
Test Procedure	Pick image from gallery or direct from camera.
Test Data	Image
Expected Result	Image should be selected and set in image picker view If image is not selected Image picker show nil
Actual Result	Image picker view show image Image picker view show nil when image is not selected properly
Status	Pass
Remarks	This is picker process test case
Created By	Arslan Raza
Date of Creation	10/05/2019
Test Environment	OS: Mac Xcode simulator

Test Case id	TC002
Test Case summary	To check the visibility of brightness feature on image
Related Requirement	User should use brightness sliders to brightness on image
Test Procedure	Image should be selected before brightness action
Test Data	Image
Expected Result	Image should be look brighter than previous
Actual Result	I edit image look brighter then actual image
Status	Pass
Remarks	This is brightness action process test case
Created By	Arslan Raza
Date of Creation	10/05/2019
Test Environment	OS: Mac Xcode simulator
Test Case Suite	TS003

Test Case id	TC003
Test Case summary	To check the functionality of microphone feature on image
Related Requirement	User should press microphone and name the object to get it on canvas
Test Procedure	Image should be selected before microphone functionality
Test Data	Image
Expected Result	Target object should be visible on screen
Actual Result	Object is visible on screen successfully
Status	Pass
Remarks	This is microphone action process test case
Created By	Arslan Raza
Date of Creation	10/05/2019
Test Environment	OS: Mac Xcode simulator
Test Case Suite	TS004

Test Case id	TC004
Test Case summary	Save the image successfully to gallery
Related Requirement	User should press press the save button to save the image
Test Procedure	Image should be selected before pressing save button
Test Data	Image
Expected Result	Image should save in gallery
Actual Result	Image is save successfully in gallery
Status	Pass
Remarks	This is microphone action process test case
Created By	Arslan Raza
Date of Creation	10/05/2019
Test Environment	OS: Mac Xcode simulator

6.2. Equivalence partitioning

Dividing the test input data into a range of values and selecting one input value from each range is called Equivalence Partitioning. This is a black box testing technique used to calculate the effectiveness of test cases and which can be applied to all levels of testing from unit, integration, system testing and so forth.

6.3. Boundary value analysis

Boundary value analysis is a test case design technique to test boundary value between partitions (both valid boundary partition and invalid boundary partition). A boundary value is an input or output value on the border of an equivalence partition, includes minimum and maximum values at inside and outside boundaries. Normally Boundary value analysis is part of stress and negative testing.

6.4. Data flow testing

The flow test is the form of white box test and a texture test, which usually continue at the points where the data value received from the variables and the points where they are checked. The basic idea of this form of testing is the detection of errors and coding error . Check if all the data variable present in programming code have been initialized.

- Make sure all condition is working properly.
- Make sure all condition is met in a define state.
- Check all the types and size of variable data correctly.
- Delete this line code that is not used in this project.

Advantages of Data Flow Testing:

Data Flow testing helps us to pinpoint any of the following issues:

- A variable that is declared but never used within the program.
- A variable that is used but never declared.
- A variable that is defined multiple times before it is used.
- DE allocating a variable before it is used.

6.5. Unit testing

Tool used for unit testing

- Coded UI Testing

6.6. Integration testing

The integration test is performed to determine if the components interact with each other. Integration have done after component testing. check the modules to interact with other modules. The integration test is applied when creating module.

In the test technique, we tested the work of combining different modules. After the development of the modules, we integrate them and checked the behaviour of the modules during the execution.

If all modules work properly if we integrate another module in which we integrate modules.

We have tested the operation of the modules; it works after the integration of this system.

6.7. Performance testing

Performance testing done by manually. The main purpose of load testing is to check the response time and our application portability power. Performance testing is done by performing multiple task at same time.

6.8. Stress Testing

In this we check the stability of our software .it is also done by manually. We perform this testing by adding in database and by fetching many type of data from database.

Chapter 7

Summary, Conclusion and Future Enhancements

Chapter 7: Summary, Conclusion & Future Enhancements

7.1. Project Summary

Image edit application has been completed and successfully implemented.

The collection of requirements was impressive. We refined requirements by the feasibility study, critical analysis, made it a final requirement.

The main objective of this project is to give an overview of the project. Readers can learn the project by reading this document. The other purpose of this document is that can be used for future system.

7.2. Achievements and Improvements

Completion of this project is our achievement. In this software we implement all the system features about image edit application but also we implement some new innovative features in this project.

7.3. Critical Review

We will use the functions of the system, then give some information about how it works.

We are satisfied with our system and also satisfied the usability of the system it should be more attractive. The system is meeting our expectations in business value our project or system helps us to grow it globally.

7.4. Lessons Learnt

In this project learn many new things. Language selection is the main subject for us of this project. we want to work on different platform and we want to use some thing different so then we decided to work on swift MVC framework. We have work first time on swift was so difficult for us to done the project on swift. We learn how to use the framework and how to use visual studio. We also generate a prototype to understand this system and also understand how modules are connected. This reduce the errors because all data has been collected in one place.

7.5. Future Enhancements/Recommendations

There is a lot of features we decided to add in future some of them are listed below.

Add more filters.

Enhance music library.

Share image on different social media.

Add a new module for video editing.

Improve the performance and adding features on user feedback.

Appendices

Appendix A: User Manual

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[Between 4 to 8 lines describe what is this appendix all about]

Appendix A: Appendix Title

[Appendix Heading 1]: [20 pt, Calibri, Bold, Left aligned]

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A.1. First Level heading [16 pt, Calibri, Bold, Left aligned]

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A.1.1. Second level heading [14 pt, Calibri, Bold, Left aligned]

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A.1.1.1. Third level heading [12 pt, Calibri, Bold, Left aligned]

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Appendix B: Administrator Manual

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[Between 4 to 8 lines describe what is this appendix all about]

B.1. First Level heading [16 pt, Calibri, Bold, Left aligned]

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B.1.1. Second level heading [14 pt, Calibri, Bold, Left aligned]

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B.1.1.1. Third level heading [12 pt, Calibri, Bold, Left aligned]

[Paragraph Text 12 pt, Calibri, 1.5 Line Spacing, Justified]

Appendix C: Information / Promotional Material

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[Between 4 to 8 lines describe what is this appendix all about]

C.1. Broacher

C.2. Flyer

C.3. Standee

C.4. Banner

C.5. First Level heading [16 pt, Calibri, Bold, Left aligned]

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Appendix [no.]: Appendix Title

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C.1.1.2. Third level heading [12 pt, Calibri, Bold, Left aligned]

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Reference and Bibliography

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- [1] M. Sher, M. Rehman, "*Title of the Paper*" Conference name/Journal Name, Edition, Volume, Issue, ISBN/ISSN, PP, Publisher/City-Country, Year.
- [2]

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