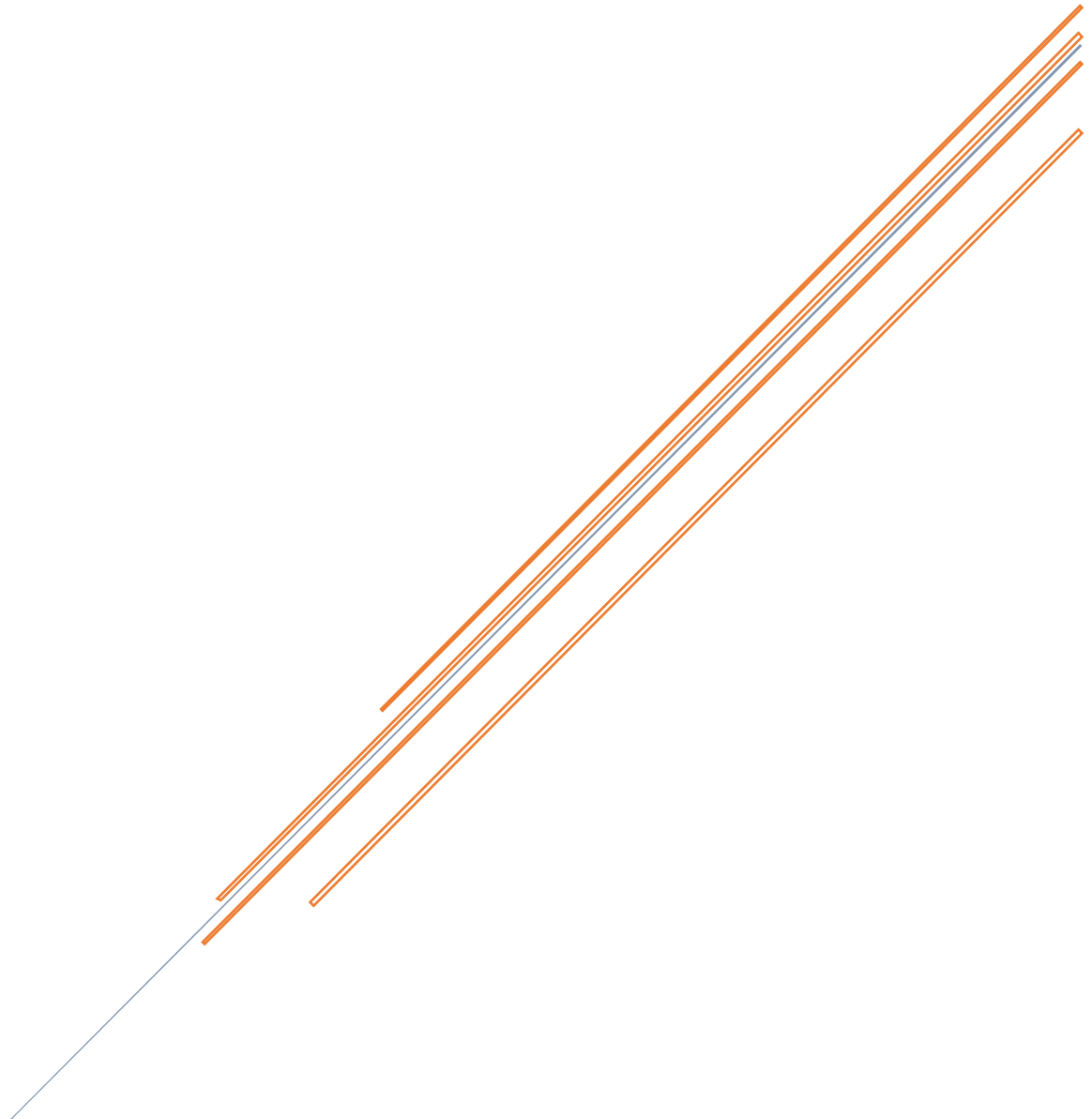


# **Project Plan**

## **For**

# **BIT Support Services System**

**By Sam Isgrove, System Analyst**



## Document Sign-Off

03/06/2022

Mr. Nirmal Chowdhury,  
Executive Sponsor, BIT Support Services  
205 Pacific Highway,  
Hornsby NSW 2077,  
Australia

Dear Mr. Chowdhury,

From your recent request to us to look for a solution to problems of BIT through developing a Computerised System for your business, please find enclosed the Project Plan of the BIT System for your consideration and approval.

We strongly believe that we have incorporated all your suggestions to meet the system requirements. However, we are happy to make any adjustment to this report should you find anything missing or necessary.

Please tick the appropriate box below, sign and return it to us at your earliest.

Yours sincerely,

Sam Isgrove

Systems Analyst

### Report Status:

- ☐ Accept the report as it is
- ☐ Accept the report with suggested amendments
- ☐ Reject the report as it does not satisfy the requirement.

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(Manager's signature & Date)

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# 1 Introduction

## 1.1 Background

BIT field support services are a division of Business Information Technology Pty Ltd (BIT) that provides IT support services (hardware and software troubleshooting, new installations, periodic IT audits, etc.) for approximately 2,500 clients in Australia. The system is currently fully paper-based causing inaccurate obsolete information, missing or lost information, poor speed of access and cumbersome access to information, time-consuming paper-based processes and vulnerabilities with data security and integrity and. Clients are complaining about the lack of feedback on their requests and it is very hard to understand the status of each job. In addition, the BIT Services' long-term goals are:

- Increase gross margin by 30%
- Increase communication between Field Contactors and Coordinators
- Remain competitive and on top in the services business
- Increase employee numbers 10% per year.

With the current system, achieving these goals will be extremely difficult if not impossible so therefore BIT management has decided to implement a computerised solution.

## 1.2 Intended Audiences and Key Stakeholders

The intended audience for this project plan is the development team, all users of the BIT system and the following key stakeholders:

- Mr. Ralph Jones – Managing Director
- Mr. Frank Dudley – CEO
- Ms. Sabrina Benson – Marketing Manager
- Mr. Gary Andrews – Service and Support Manager
- Ms. Laura Dannis – Sales manager
- Mr. John Peters – Admin Director
- Mr. Nirmal Chowdhury – Executive Sponsor

## **2 Project Plan**

### **2.1 Overview**

This document contains the plan for the BIT System project.

### **2.2 Goals and Objects**

#### **2.2.1 Goals**

The goals Bit Services are to provide total IT support to clients by remaining on top of new technology. Their long-term goals are:

- Increase gross margin by 30%
- Increase communications between contractors and coordinators
- Remain competitive and on top in the services business
- Increase employee number 10% per year

#### **2.2.2 Objectives:**

Bit Services company objectives are:

- Increase quality coordination
- Provide better services on cross-platform technologies
- Remain competitive and increase profit margin

### **2.3 Requirements**

#### **2.3.1 Functional Requirements**

To overcome the problems that BIT Services are facing, the system requirement is a centralised computerised system to run smoothly and achieve their goals are with the following features/functions:

- Contractor rostering management
- Contractor skills management
- Contractors job assignment management
- Client service request
- Client feedback management
- Finance management
- Human resources management
- Payroll management

## 2.3.2 Non-Functional Requirements

- **A User-Friendly System:** The system must be easy for all users to use not matter the level of their computer literacy or what part of the system they are using.
- **Efficient System:** All features must function correctly and efficiently according to the business requirements.
- **Secure System:** Customer data must be protected from potential security breaches.
- **Privacy Respecting System:** Customer data must be stored in a way that abides various user data privacy regulations.
- **Reliable System:** The system must be stable and have at least 99% uptime during business hours.

## 2.4 Scope

### 2.4.1 In-Scope

- Contractor rostering management
- Contractor skills management
- Contractors job assignment management
- Client service request
- Client feedback management
- Human resources management
- Payroll management

### 2.4.2 Out of Scope

- Finance management

### 2.4.3 Assumptions

The following assumptions for the BIT System have been made:

- Contractors will be available for the entire day if they have said they are available.
- All jobs will take an entire day to do.
- Contractors can only complete 1 job a day.
- Skills must be present in the database before they are added to a contractor.
- Client feedback cannot be updated or deleted.



## **2.5 Success Factors**

### **Meet Stated Requirements**

- Maintain regular communication with the client/users.
- Reconfirm with users the progress of the requirement tasks as they are completed.

### **Executive/Top Management Support**

- Verify with Executive Management each stage of the project completion.
- Obtain sign-off of the deliverables of every stage as completed

### **User Involvement**

- Get users engaged and involved in checking/verifying project progress regularly.

### **Proper Schedule & Planning**

- Hold regular meetings with team members to check project progress.
- Review & Re-Plan activities as required.
- Meet deadlines of project phases.
- 

### **Compliance with Approved Budget**

- Monitor budget expenditure regularly.
- Sign-off progress budget expenditure report regularly.

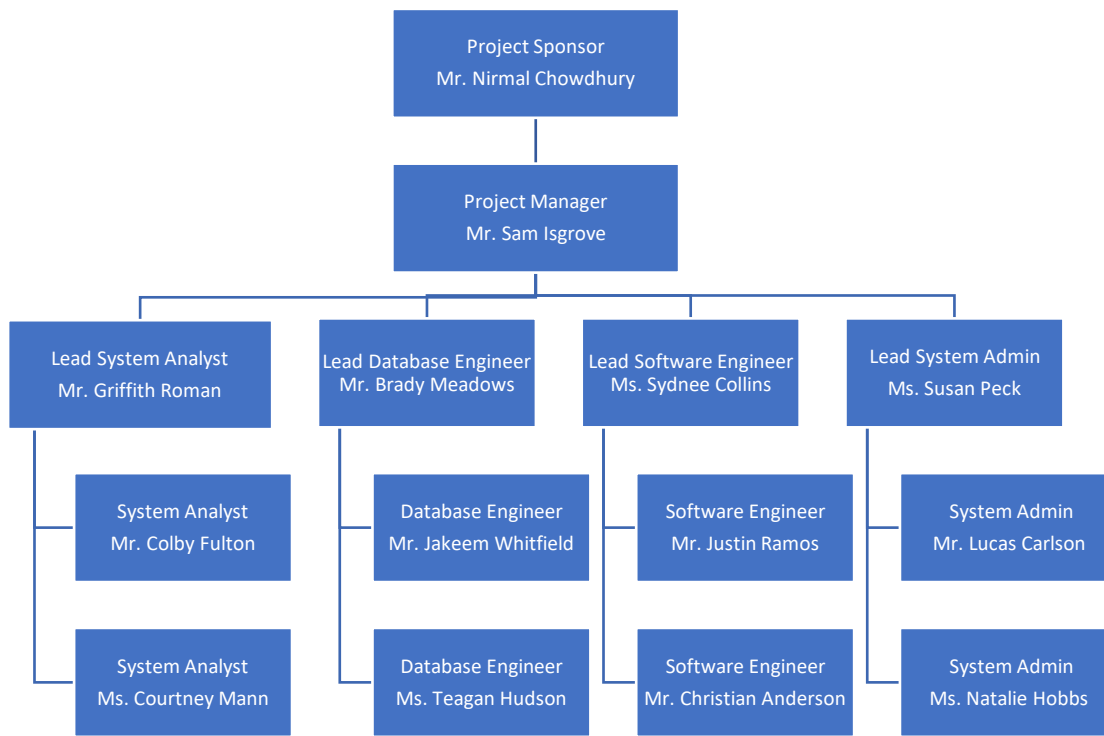
### **Proper Project Management**

- Complete every phase within time & budget.
- Check project schedule and budget met in every phase.
- Review and Re-allocate budget as & when necessary.

### **Quality of outcome**

- Check against the set quality of each outcome.
- Get client Approval and Sign-Off of every phase.

## 2.6 Development Team Chart



## 2.7 Timeline

The project milestones and their expected dates are the following:

Milestone	Expected Date
User Requirements Defined	20/6/22
Feasibility Study Report	27/6/22
System Requirements	8/7/22
Specification Report	20/7/22
System Design Specification Report	3/8/22
User Acceptance Report	8/8/22

Please see “Appendix A” for WBS and “Appendix B” Gantt Chart.

## 2.8 Communication and Project Tracking Strategies

### 2.8.1 Communication Strategies

Communication Style	Description	Strategies
<b>Passive</b>	Can act indifferently, uncaring, will yield to others, fail to express their ideas or feelings. Lack of eye contact, inability to say no.	Ask them what they are thinking or feeling, acknowledge what they are saying, emphasise that you appreciate their opinions. Listen to them, be aware of your body language (e.g. crossed arms), resolved conflicts immediately.
<b>Aggressive</b>	Loud or demanding voice, dominating or controlling others by intimidating, threatening. Are often rude and fail to listen to others.	Recognise when someone is being aggressive, be calm and pleasant, ask open-ended questions, stick to the facts, be assertive, don't take things personally, stand up for your rights.
<b>Passive-Aggressive</b>	May appear passive on the surface but build up a resentment to act out indirectly. They don't confront the person or issue, may deny there is a problem. May give someone the silent treatment, spread rumours, sabotages other people's efforts.	Do not react to their behaviour, do not blame or judge, engage them positively and assertively, be empathetic.
<b>Assertive</b>	Openly communicates without being overbearing, expresses their own needs, ideas and feelings while considering the needs of others. They own their feelings and behaviours without blaming.	Mirror their behaviour and be assertive yourself.

## 2.8.2 Tracking Strategies

Tracking Strategy	Frequency	Participants	Description
Conduct meetings	Weekly	Project Manager Team Leaders BIT Management	Hold status meetings to receive updates from team members and stakeholders, as well as keep everyone informed about the progress of the project.
Maintain budget and schedule	Weekly	Project Manager Team Leaders	Review project progress with the proposed time and budget constraints.  Develop strategies to ensure the project remains within constraints
Project management software	Daily	Project Manager Team Leaders Team Members	Introduce team collaboration software to help team members communicate, track progress, check tasks, manage file access levels, maintain version control and share files.

## 2.9 Change management strategy & procedures

Any change needed to be made to the BIT System must be placed as a formal request to the development team. Please see the change request form in “Appendix C”.

Factors that will be considered in reviewing the change request will be the following:

- Skills and skill level of participants required to complete the proposed change.
- Impact of the proposed change on the project schedule, budget or project success.
- Does the proposed change require project scope or requirements to be redefined?
- Does the proposed change require additional resources such as tools, people or technology?

Change requests will be prioritised using the following classification codes:

- **P1 (Critical):** The change is imperative to the success of the project; hence, the request is a mandatory and must be completed.
- **P2 (High):** The change is important to impact the success of the project, hence, the request is expected to be completed.
- **P3 (Medium):** The change is potential to impact successful completion of the project, but not an immediate help nor hindrance.
- **P4 (Low):** The change requests need to be addressed if the time and budget permit. Low priority change requests are normally cosmetic changes and are managed as resources are available.

## 2.10 Control Structures

GitHub, a source code version management tool that uses Git, will be used to manage all control features for the BIT System.

## 2.11 Source-Code Control Procedure

This project will make use of GitHub to manage the repositories. The developers will be able to manipulate the files in the repository in the following ways:

- **Read-only:** Examine the code without making changes.
- **Read/Write:** Examine the code and make changes.
- **Modified:** Check which files have been modified.

## 2.12 Project Costs and ROI Analysis

Items	2021	2022	2023	2024	2025	Total
Cash Inflow	\$10,200,000	\$10,500,000	\$11,500,000	\$11,950,000	\$12,200,000	\$56,350,000
Cash Outflow	\$9,575,000	\$8,450,000	\$8,350,000	\$8,470,000	\$8,400,000	\$43,245,000
Net Cashflow	\$625,000	\$2,050,000	\$3,150,000	\$3,480,000	\$3,800,000	\$13,105,000
Cumulative Cashflow	\$625,000	\$2,675,000	\$5,200,000	\$6,630,000	\$7,280,000	
Simple ROI	7%	15%	22%	27%	37%	

The following formula was used to calculate Simple ROI in the above figure:

$$\text{Simple ROI} = \frac{\text{Gains} - \text{Investment Costs}}{\text{Investment Costs}}$$

## 2.13 Risks, Risk Management & Contingencies

Risk	Risk Level (L/M/H)	Likelihood of Event	Mitigation Strategy
<b>Project Size</b>			
Person Hours	High	Certainty	Assigned Project Manager, Engaged Consultant, Comprehensive project Management Approach, and Communications Plan.
Estimated Project Schedule	High	Certainty	Created comprehensive project timeline with frequent baseline reviews.
Team Size at Peak	High	Certainty	Comprehensive communications plan, frequent meetings, tight project management oversight.
Number of Interfaces to Existing Systems Affected	High	Certainty	Develop interface control document immediately.
<b>Project Definition</b>			
Narrow Knowledge Level of Users	Medium	Likely	Assigned Project manager(s) to assess global implications.
Available documentation clouds establishment of baseline	Medium	Likely	Balance of information to be gathered by consultant.
Project Scope Creep	Low	Unlikely	Scope initially defined in project plan, reviewed monthly by two groups (Project Manager and Steering Committee) to prevent undetected scope creep.
Consultant Project Deliverables unclear	Low	Unlikely	Included in project plan, subject to amendment.
Vendor Project Deliverables	Medium	Somewhat Likely	Included in project plan, subject to amendment.
Cost Estimates Unrealistic	Low	Unlikely	Included in project plan, subject to amendment as new details regarding project scope revealed.
Timeline Estimates Unrealistic	Medium	Somewhat Likely	Timeline reviewed monthly by two groups (Project Manager and Steering Committee) to prevent undetected timeline departures.
Number of Team Members Unknowledgeable of Business	Low	Unlikely	Project manager and Consultant to identify knowledge gaps and provide training as necessary.
<b>Project Leadership</b>			
Lack of Leadership skill	Low	Unlikely	Reviewed by two groups (Project manager and Steering Committee) to appoint the right leader.
Lack of regular monitoring	Low	Unlikely	Reviewed by two groups (Project manager and Steering Committee) to prevent lack of regular progress checking.

## **3 Development Methodology**

### **3.1 Chosen Methodologies**

This project will be developed using an Agile Model approach with Iterative Model and Incremental Model as supporting methodologies.

### **3.2 Reasons for choosing**

#### **Agile Model**

The Agile Model has been chosen due to the freedom agile gives to changes and increase the options we must make the development and implementation of the BIT System successful. This allows us to implement new features to the BIT System easily without causing delays when meeting milestone deadlines.

#### **Iterative Model**

The Iterative Model has been chosen as a supporting methodology due to the requirements of the BIT System being clearly defined by BIT management and understood by our team. The large size of the project is also another reason it has been chosen. The Iterative Model also gives us the flexibility to change features as requirements of the system evolve.

#### **Incremental Model**

The Incremental Model has been chosen as a supporting methodology due as to help us get the BIT System developed and implemented in a timely manner. We have also chosen it due to the requirements of the system being clearly defined by BIT management and understood by our team.

### **3.3 List of Tasks**

#### **User Requirement Definition**

- Data Gathering
- Report Preparation
- UR Report Presentation

#### **Feasibility Study**

- Cost-Benefit Analysis
- Report Preparation
- FS Report Presentation

#### **System Analysis**

- Data Gathering
- Data Analysis
- Analysis Report Preparation
- SRS Report Presentation

#### **System Design**

- Preliminary Design
- Detail Design
- Design Report Preparation
- SD Report Presentation

#### **System Development**

- Writing Code
- Testing Code
- Writing User Manual
- User Acceptance Testing

#### **System Implementation**

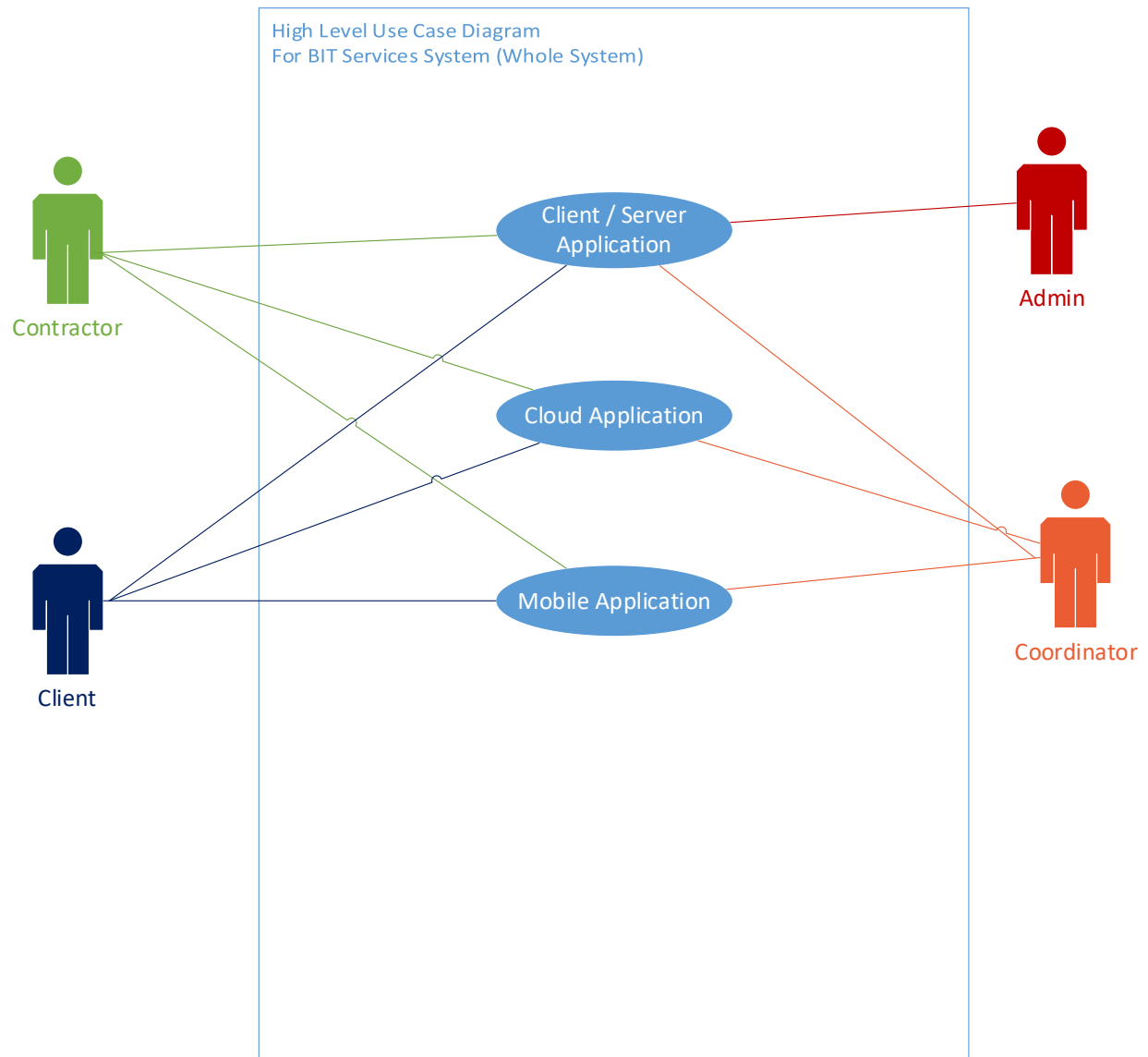
- System Installation
- User Training
- System Handover



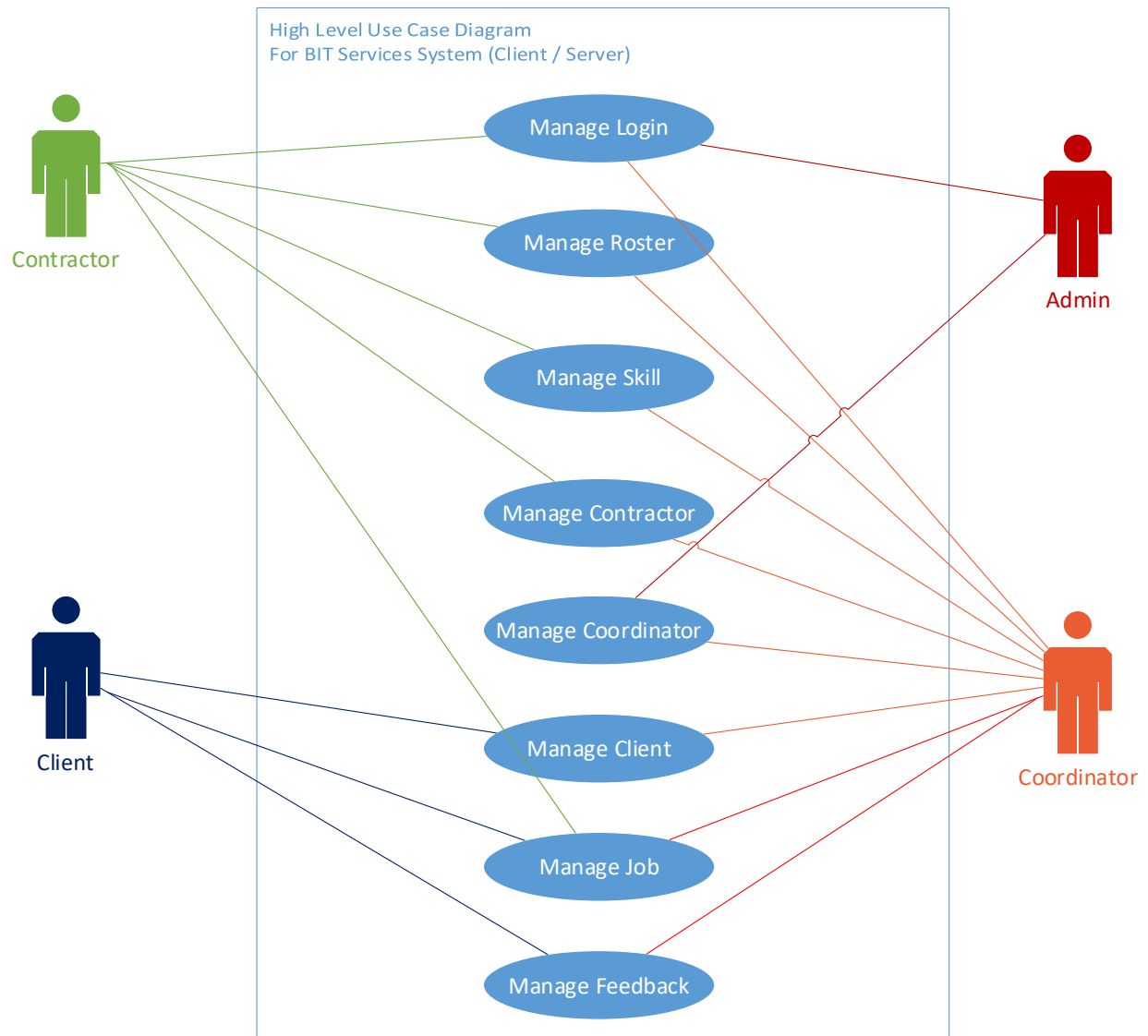
## 4 Solution Diagrams

### 4.1 Use Case Diagrams

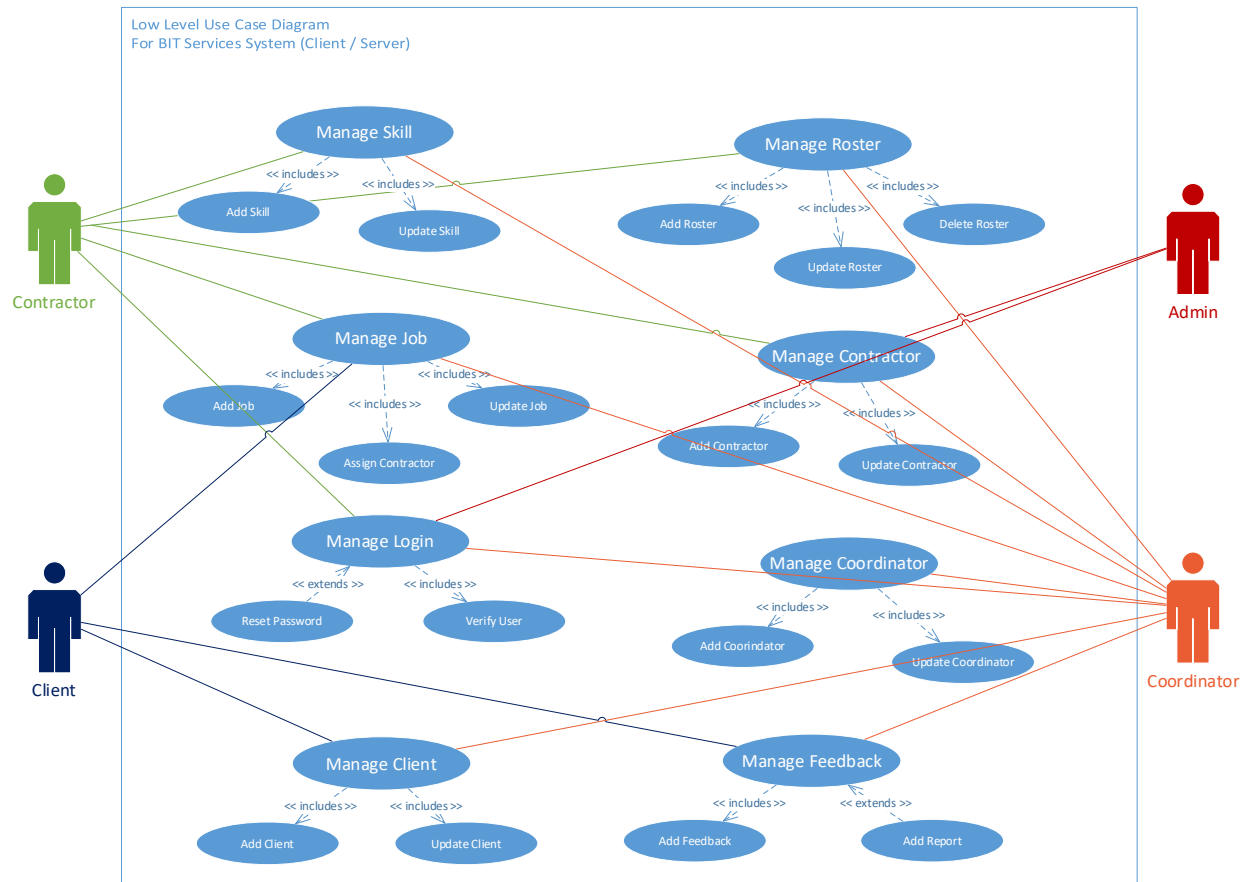
#### 4.1.1 High Level System



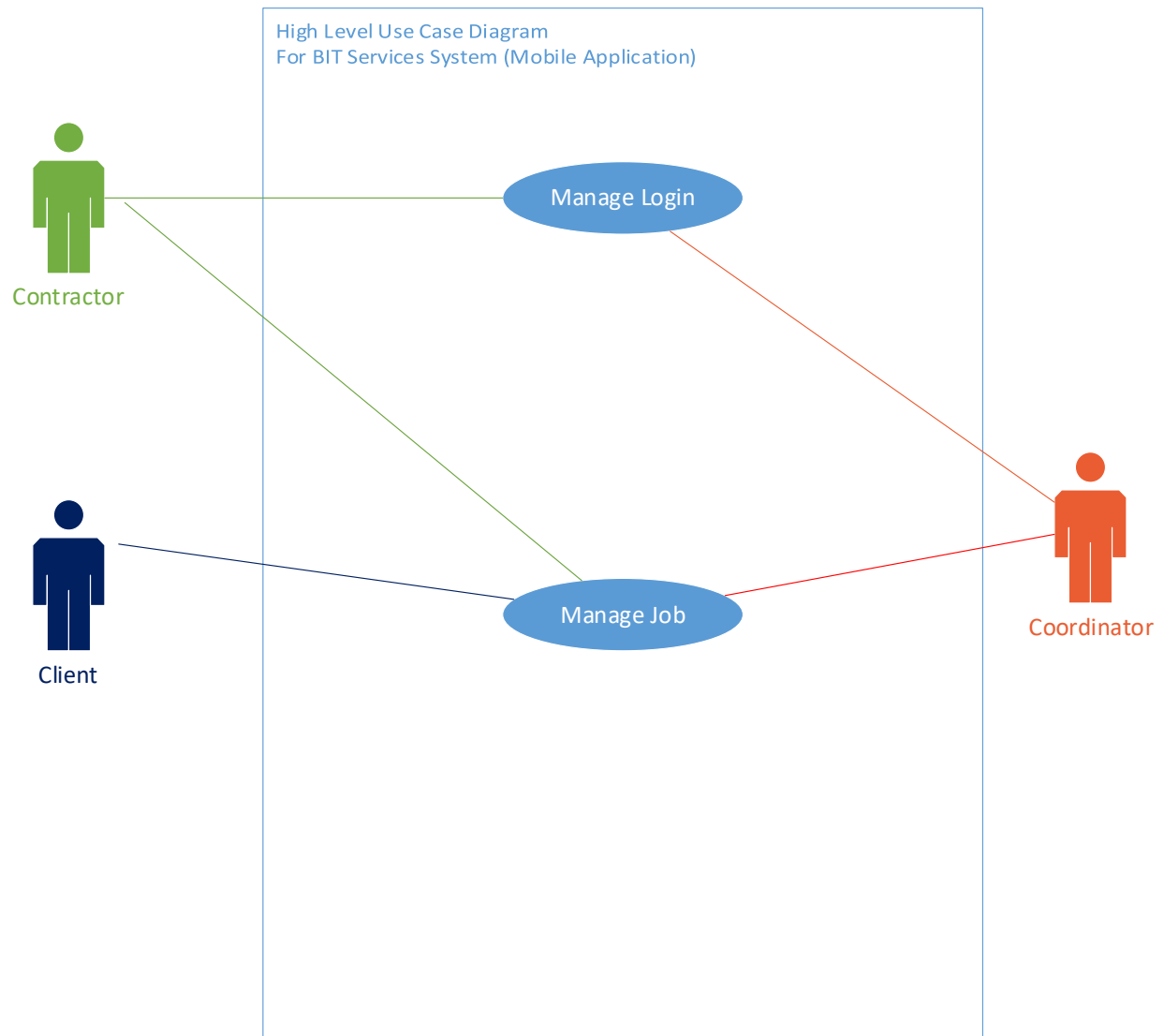
### 4.1.2 High level client / server



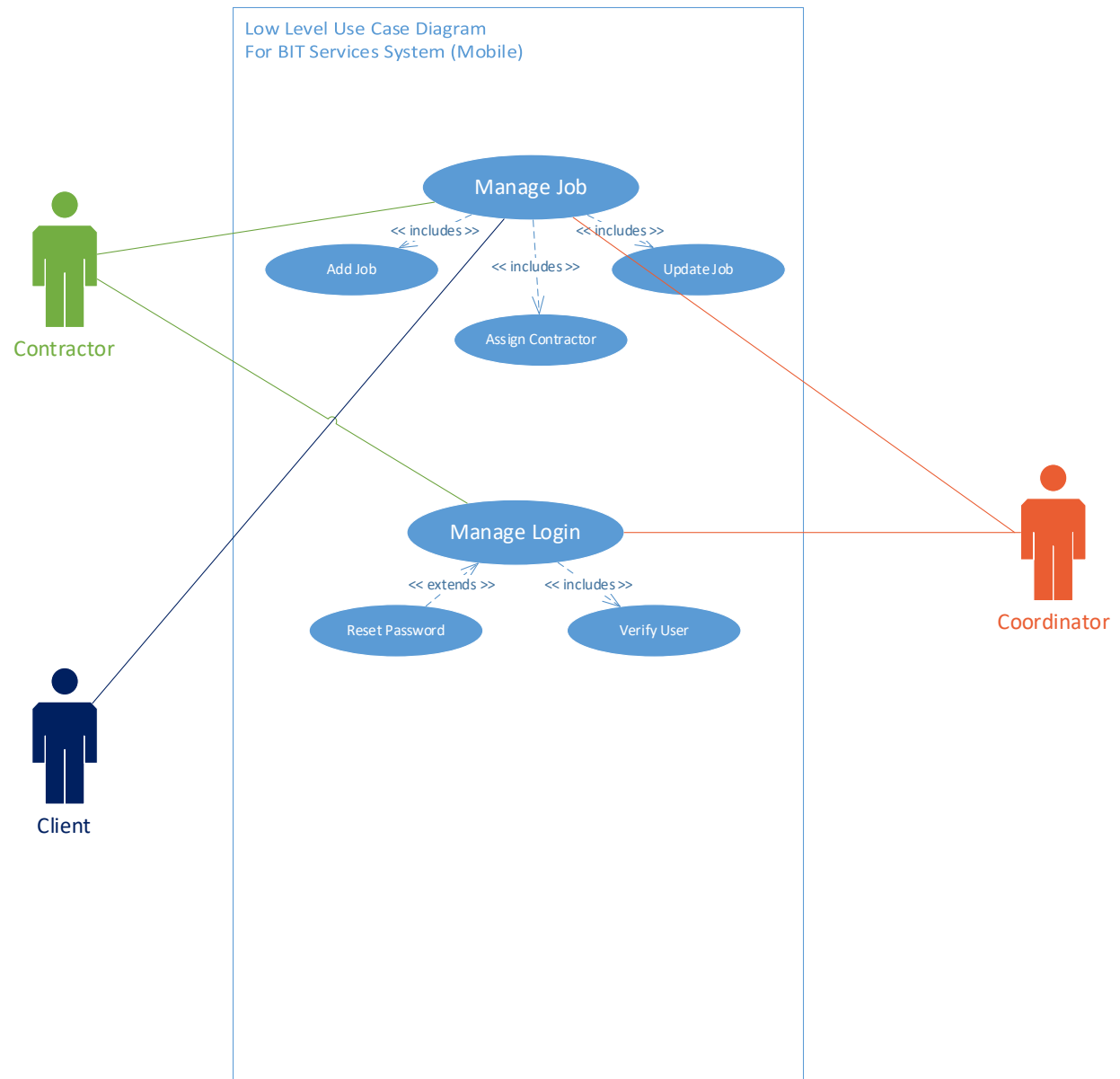
### 4.1.3 Low level client / server



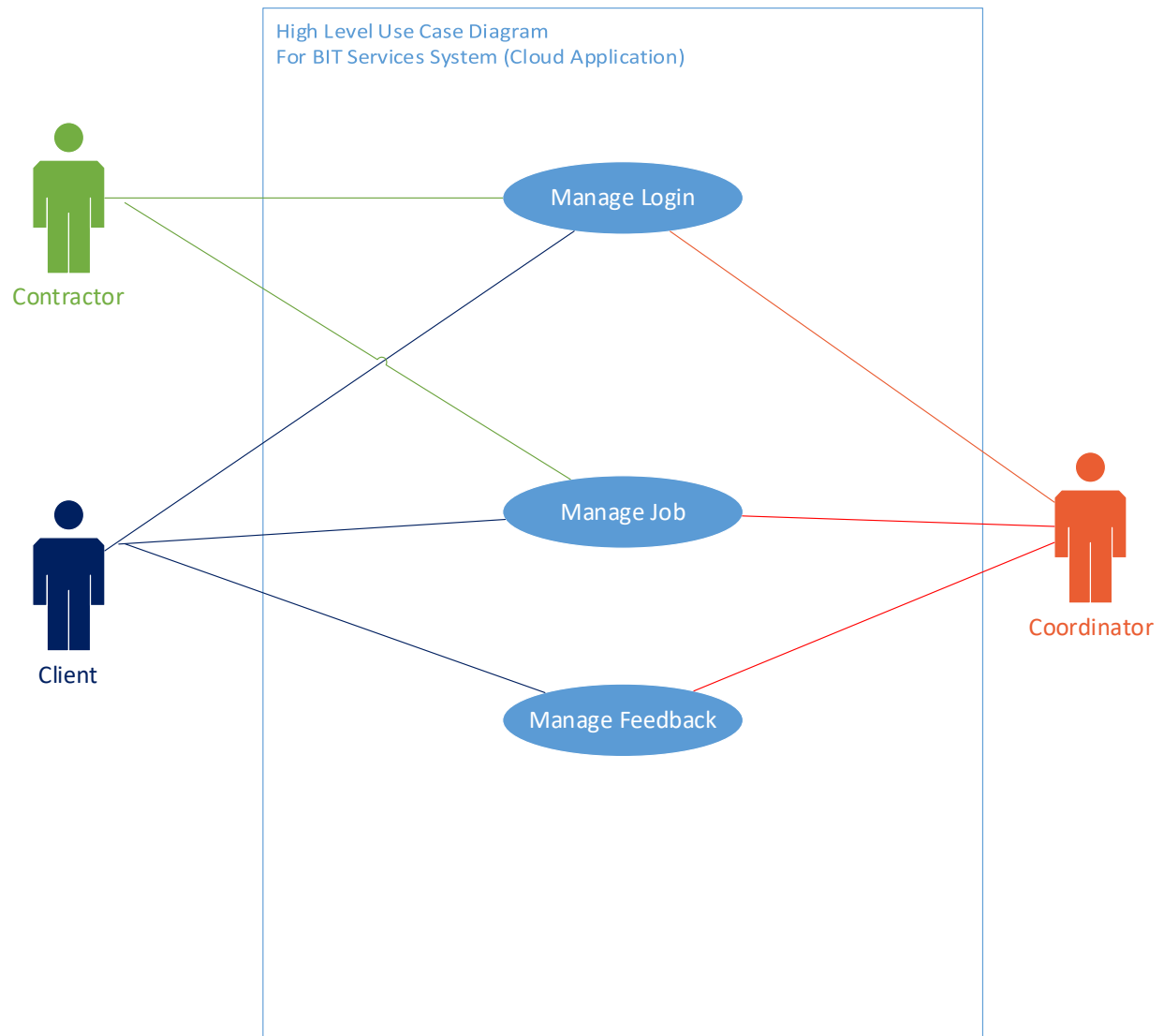
#### 4.1.4 High level mobile



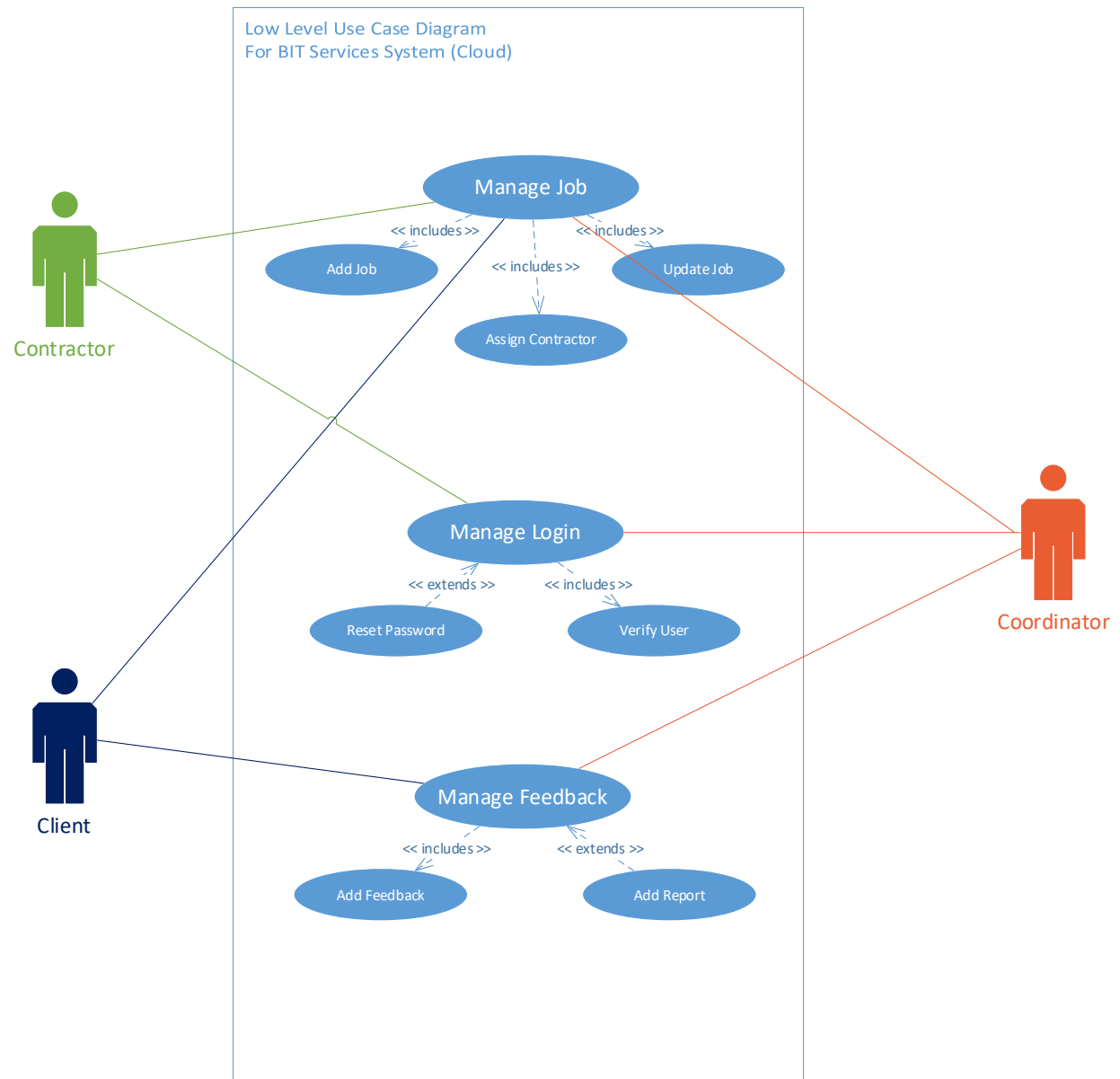
### 4.1.5 Low level mobile



## 4.1.6 High level cloud



## 4.1.7 Low level cloud



## 4.2 Use Case Narratives (Client / Server)

### 4.2.1 Manage Login

- 1 **Brief Description:** This use case describes how login is managed in the system.
- 2 **Flow of Events:** This use case starts when a user (contractor, admin or coordinator) opens the application and selects the “Login” option from the main menu.
  - 2.1 **Main Flow:**
    - 2.1.1 System displays the “Login Form” on the screen.
    - 2.1.2 The user obtains and enters their credentials (username and password) on the screen and clicks the “Login” button.
    - 2.1.3 The system verifies that the credentials the user entered are valid in the user file.
    - 2.1.4 The system displays the “Main Menu” on the screen.
  - 2.2 **Alternative Flows:**
    - 2.2.1 Invalid User Credentials
      - The user verification failed.
      - System displays an error message on the screen.
    - 2.2.2 Reset Password
      - User is unsuccessful 5x times.
      - System displays “Change Password Form” on the screen.
      - User enters a new password and clicks the “Confirm Password Reset” button
      - System updates user with the new password
  - 2.3 **Exception Flows:** None
- 3 **Associations:**
  - 3.1 **Actor(s):**
    - Admin
    - Coordinator
    - Contractor
  - 3.2 **Associations to other Use Cases:**
    - Mange Roster
    - Manage Skill
    - Manage Contractor
    - Manage Coordinator
    - Manage Client
    - Manage Job
    - Manage Feedback
  - 3.3 **Associations from other Use Cases:**
    - None
- 4 **Preconditions:** All users must be pre-registered.



## 4.2.2 Manage Roster

- 1 **Brief Description:** This use case describes how a roster is managed in the system.
- 2 **Flow of Events:** This use case starts when the coordinator selects the “Manage Roster” option in the main menu.
  - 2.1 **Main Flow:**
    - 2.1.1 System displays the “Manage Roster Form” on the screen with the following options: Add Roster, Update Roster, Delete Roster.
    - 2.1.2 Coordinator selects an option from “Manage Roster Form”.  
**Delete Roster option is selected**
      - 2.1.3 The system displays the “Delete Roster Form” on the screen.
      - 2.1.4 The coordinators click the “Delete Roster Button” on the roster they want to delete.
      - 2.1.5 The system looks for the roster ID in the roster file, if found the system marks the roster as inactive in the roster file.  
**Add Roster option is selected**
        - 2.1.6 The system displays the “Add Roster Form” on the screen.
        - 2.1.7 The coordinator obtains and enters the contractor availability into the “Add Roster Form”.
        - 2.1.8 The coordinator clicks the “Submit Roster Button” on the screen.
        - 2.1.9 The system looks for the contractor availability in the availability file, if found the system then validates the data and saves it into the roster file.  
**Update Roster option is selected**
          - 2.1.10 The system displays the “Update Roster Form” on the screen.
          - 2.1.11 The coordinators click the “Update Roster Button” on the roster they want to update.
          - 2.1.12 The coordinator replaces the current roster data with the new roster data into the “Update Roster Form”
          - 2.1.13 The coordinator clicks the “Save Roster Button” on the screen.
          - 2.1.14 The system looks for the contractor availability in the availability file and looks for the roster in the roster file, if found the system then validates the data and saves it into the roster file.
    - 2.2 **Alternative Flows:**
      - 2.2.1 Invalid Data (for Add Roster and Update Roster options)
        - System displays an error message on the screen.
        - The program control returns to the “Mange Roster Form”
    - 2.3 **Exception Flows:** None
  - 3 **Associations:**
    - 3.1 **Actor(s):**
      - Coordinator
    - 3.2 **Associations to other Use Cases:**
      - Manage Contractor
    - 3.3 **Associations from other Use Cases:**
      - Manage Login
  - 4 **Preconditions:** None

### 4.2.3 Manage Skill

- 1 **Brief Description:** This use case describes how a skill is managed in the system.
- 2 **Flow of Events:** This use case starts when the user (coordinator or contractor) selects the “Manage Skill” option in the main menu.
  - 2.1 **Main Flow:**
    - 2.1.1 System displays the “Manage Skill Form” on the screen with the following options: Add Skill, Update Skill.
    - 2.1.2 User selects an option from “Manage Skill Form”.  
**Add Skill option is selected**
      - 2.1.3 The system displays the “Add Skill Form” on the screen.
      - 2.1.4 The user obtains and enters the skill name into the “Add Skill Form”.
      - 2.1.5 The user clicks the “Submit Skill Button” on the screen.
      - 2.1.6 The system then validates the data and saves it into the skill file.  
**Update Skill option is selected**
        - 2.1.7 The system displays the “Update Skill Form” on the screen.
        - 2.1.8 The user clicks the “Update Skill Button” on the skill they want to update.
        - 2.1.9 The user replaces the current skill data with the new skill data into the “Update Skill Form”
        - 2.1.10 The user clicks the “Save Skill Button” on the screen.
        - 2.1.11 The system looks for the skill in the skill file, if found the system then validates the data and saves it into the skill file.
  - 2.2 **Alternative Flows:**
    - 2.2.1 Invalid Data (for Add Skill and Update Skill options)
      - System displays an error message on the screen.
      - The program control returns to the “Mange Skill Form”
  - 2.3 **Exception Flows:** None
- 3 **Associations:**
  - 3.1 **Actor(s):**
    - Coordinator
    - Contractor
  - 3.2 **Associations to other Use Cases:**
    - Manage Contractor
  - 3.3 **Associations from other Use Cases:**
    - Manage Login
- 4 **Preconditions:** None

## 4.2.4 Manage Job

- 1 **Brief Description:** This use case describes how a job is managed in the system.
- 2 **Flow of Events:** This use case starts when the coordinator selects the “Manage Job” option in the main menu.
  - 2.1 **Main Flow:**
    - 2.1.1 System displays the “Manage Job Form” on the screen with the following options: Add Job, Update Job, Assign Contractor.
    - 2.1.2 Coordinator selects an option from “Manage Job Form”.  
**Add Job option is selected**
    - 2.1.3 The system displays the “Add Job Form” on the screen.
    - 2.1.4 The coordinator obtains enters the details of the job into the “Add Job Form”.
    - 2.1.5 The coordinator clicks the “Submit Job Button” on the screen.
    - 2.1.6 The system then validates the data and saves it into the job file.  
**Update Job option is selected**
    - 2.1.7 The system displays the “Update Job Form” on the screen.
    - 2.1.8 The coordinator clicks the “Update Job Button” on the job they want to update.
    - 2.1.9 The coordinator replaces the current job data with the new job data into the “Update Job Form”
    - 2.1.10 The coordinator clicks the “Save Job Button” on the screen.
    - 2.1.11 The system looks for the job in the job file, if found the system then validates the data and saves it into the job file.  
**Assign Contractor option is selected**
    - 2.1.12 The system displays the “Assign Contractor Form” on the screen.
    - 2.1.13 The system looks for contractors to assign to job.
    - 2.1.14 The coordinator clicks the “Assign Contractor Button” on the contractor they want to assign.
    - 2.1.15 The system looks for the job in the job file and contractor in the contractor file, if found the system then validates the data and saves it into the job file.
  - 2.2 **Alternative Flows:**
    - 2.2.1 Invalid Data (for Add Job and Update Job options)
      - System displays an error message on the screen.
      - The program control returns to the “Mange Job Form”
    - 2.2.2 No available contractors (For Assign Contractor option)
      - System displays an error message on the screen.
      - The program control returns to the “Mange Job Form”
  - 2.3 **Exception Flows:** None
- 3 **Associations:**
  - 3.1 **Actor(s):**
    - Coordinator
    - Contractor
    - Client
  - 3.2 **Associations to other Use Cases:**
    - None

### 3.3 Associations from other Use Cases:

- Manage Login

### 4 Preconditions: None

## 4.2.5 Manage Contractor

1 **Brief Description:** This use case describes how a contractor is managed in the system.

2 **Flow of Events:** This use case starts when the coordinator selects the “Manage Contractor” option in the main menu.

#### 2.1 Main Flow:

2.1.1 System displays the “Manage Contractor Form” on the screen with the following options: Add Contractor, Update Contractor.

2.1.2 Coordinator selects an option from “Manage Contractor Form”.

##### **Add Contractor option is selected**

2.1.3 The system displays the “Add Contractor Form” on the screen.

2.1.4 The coordinator obtains and enters the details of the contractor into the “Add Contractor Form”.

2.1.5 The coordinator clicks the “Submit Contractor Button” on the screen.

2.1.6 The system then validates the data and saves it into the contractor file.

##### **Update Contractor option is selected**

2.1.7 The system displays the “Update Contractor Form” on the screen.

2.1.8 The coordinator clicks the “Update Contractor Button” on the contractor they want to update.

2.1.9 The coordinator replaces the current contractor data with the new contractor data into the “Update Contractor Form”

2.1.10 The coordinator clicks the “Save Contractor Button” on the screen.

2.1.11 The system looks for the contractor in the contractor file, if found the system then validates the data and saves it into the contractor file.

#### 2.2 Alternative Flows:

2.2.1 Invalid Data (for Add Contractor and Update Contractor options)

- System displays an error message on the screen.
- The program control returns to the “Mange Contractor Form”

#### 2.3 Exception Flows: None

### 3 Associations:

#### 3.1 Actor(s):

- Coordinator
- Contractor

### 3.2 Associations to other Use Cases:

- None

### 3.3 Associations from other Use Cases:

- Manage Login

### 4 Preconditions: None

## 4.2.6 Manage Coordinator

- 1 **Brief Description:** This use case describes how a coordinator is managed in the system.
- 2 **Flow of Events:** This use case starts when the admin selects the “Manage Coordinator” option in the main menu.
  - 2.1 **Main Flow:**
    - 2.1.1 System displays the “Manage Coordinator Form” on the screen with the following options: Add Coordinator, Update Coordinator.
    - 2.1.2 Admin selects an option from “Manage Coordinator Form”.  
**Add Coordinator option is selected**
    - 2.1.3 The system displays the “Add Coordinator Form” on the screen.
    - 2.1.4 The admin obtains and enters the details of the contractor into the “Add Coordinator Form”.
    - 2.1.5 The admin clicks the “Submit Coordinator Button” on the screen.
    - 2.1.6 The system then validates the data and saves it into the coordinator file.  
**Update Coordinator option is selected**
    - 2.1.7 The system displays the “Update Coordinator Form” on the screen.
    - 2.1.8 The admin clicks the “Update Coordinator Button” on the coordinator they want to update.
    - 2.1.9 The admin replaces the current coordinator data with the new coordinator data into the “Update Coordinator Form”
    - 2.1.10 The admin clicks the “Save Coordinator Button” on the screen.
    - 2.1.11 The system looks for the coordinator in the coordinator file, if found the system then validates the data and saves it into the coordinator file.
  - 2.2 **Alternative Flows:**
    - 2.2.1 Invalid Data (for Add Coordinator and Update Coordinator options)
      - System displays an error message on the screen.
      - The program control returns to the “Mange Coordinator Form”
  - 2.3 **Exception Flows:** None
- 3 **Associations:**
  - 3.1 **Actor(s):**
    - Coordinator
    - Admin
  - 3.2 **Associations to other Use Cases:**
    - None
  - 3.3 **Associations from other Use Cases:**
    - Manage Login
- 4 **Preconditions:** None

## 4.2.7 Manage Client

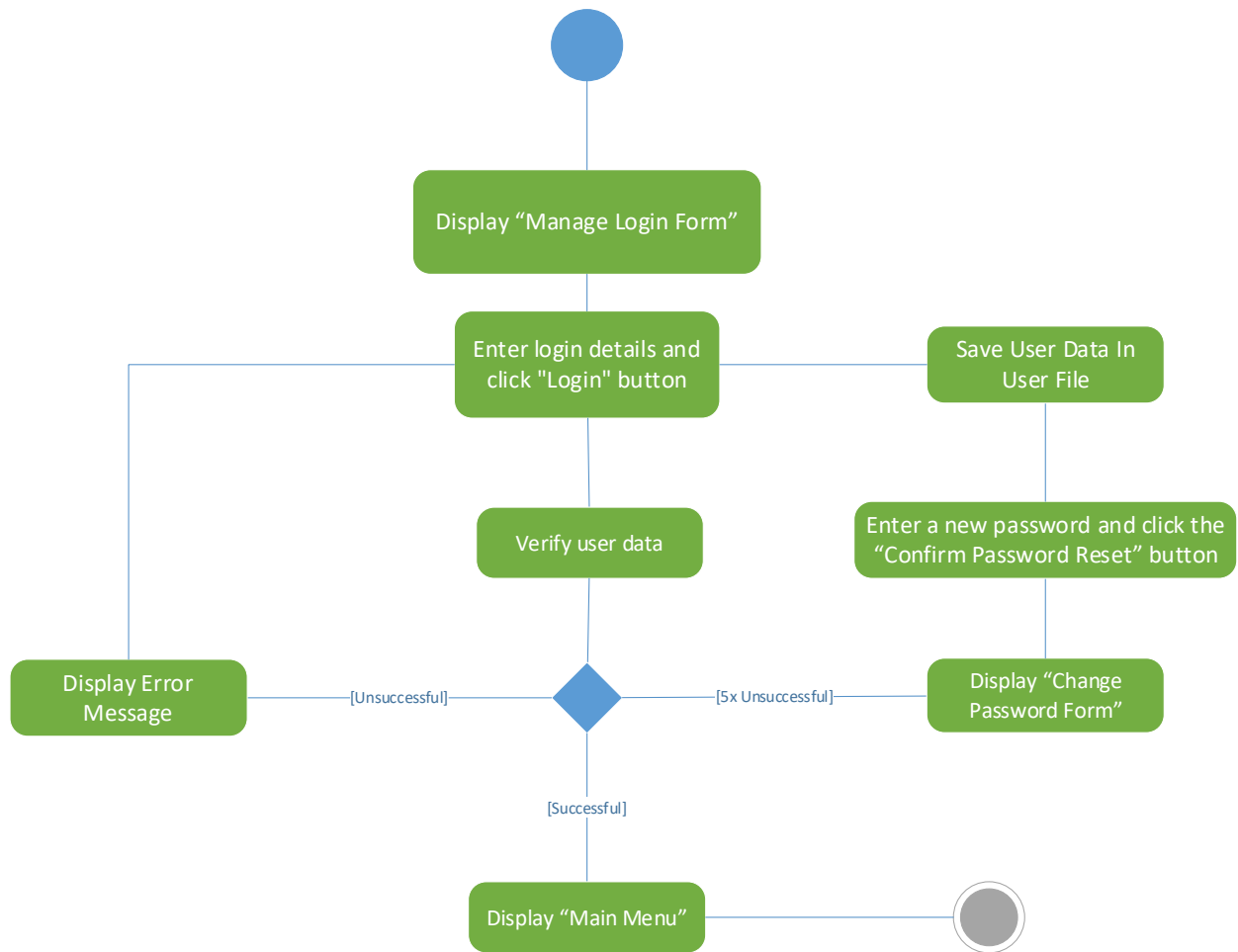
- 1 **Brief Description:** This use case describes how a client is managed in the system.
- 2 **Flow of Events:** This use case starts when the coordinator selects the “Manage Client” option in the main menu.
  - 2.1 **Main Flow:**
    - 2.1.1 System displays the “Manage Client Form” on the screen with the following options: Add Client, Update Client.
    - 2.1.2 Coordinator selects an option from “Manage Client Form”.  
**Add Client option is selected**
      - 2.1.3 The system displays the “Add Client Form” on the screen.
      - 2.1.4 The coordinator obtains and enters the details of the client into the “Add Client Form”.
      - 2.1.5 The coordinator clicks the “Submit Client Button” on the screen.
      - 2.1.6 The system then validates the data and saves it into the client file.  
**Update Client option is selected**
        - 2.1.7 The system displays the “Update Client Form” on the screen.
        - 2.1.8 The coordinator clicks the “Update Client Button” on the client they want to update.
        - 2.1.9 The coordinator replaces the current client data with the new client data into the “Update Client Form”
        - 2.1.10 The coordinator clicks the “Save Client Button” on the screen.
        - 2.1.11 The system looks for the client in the client file, if found the system then validates the data and saves it into the client file.
  - 2.2 **Alternative Flows:**
    - 2.2.1 Invalid Data (for Add Client and Update Client options)
      - System displays an error message on the screen.
      - The program control returns to the “Mange Contractor Form”
  - 2.3 **Exception Flows:** None
- 3 **Associations:**
  - 3.1 **Actor(s):**
    - Coordinator
    - Client
  - 3.2 **Associations to other Use Cases:**
    - None
  - 3.3 **Associations from other Use Cases:**
    - Manage Login
- 4 **Preconditions:** None

## 4.2.8 Manage Feedback

- 1 **Brief Description:** This use case describes how client feedback is managed in the system.
- 2 **Flow of Events:** This use case starts when the coordinator selects the “Manage Feedback” option in the main menu.
  - 2.1 **Main Flow:**
    - 2.1.1 System displays the “Manage Feedback Form” on the screen.
    - 2.1.2 The coordinator clicks the “Add Feedback” button.
    - 2.1.3 The system displays the “Add Feedback Form” on the screen.
    - 2.1.4 The coordinator obtains and enters the details of the client feedback into the “Add Feedback Form”.
    - 2.1.5 The coordinator clicks the “Submit Feedback Button” on the screen.
    - 2.1.6 The system then validates the data and saves it into the feedback file.
  - 2.2 **Alternative Flows:**
    - 2.2.1 Invalid Data (for Add Feedback)
      - System displays an error message on the screen.
      - The program control returns to the “Mange Feedback Form”
    - 2.2.2 Add Report
      - Coordinator selects the “Add Report” option.
      - System displays “Add Report Form” on the screen.
      - Coordinator obtains and enters the data and clicks the “Confirm Report Creation” button.
      - Then system then validates the data and saves it into the report file.
- 2.3 **Exception Flows:** None
- 3 **Associations:**
  - 3.1 **Actor(s):**
    - Coordinator
    - Client
  - 3.2 **Associations to other Use Cases:**
    - None
  - 3.3 **Associations from other Use Cases:**
    - Manage Login
- 4 **Preconditions:** None

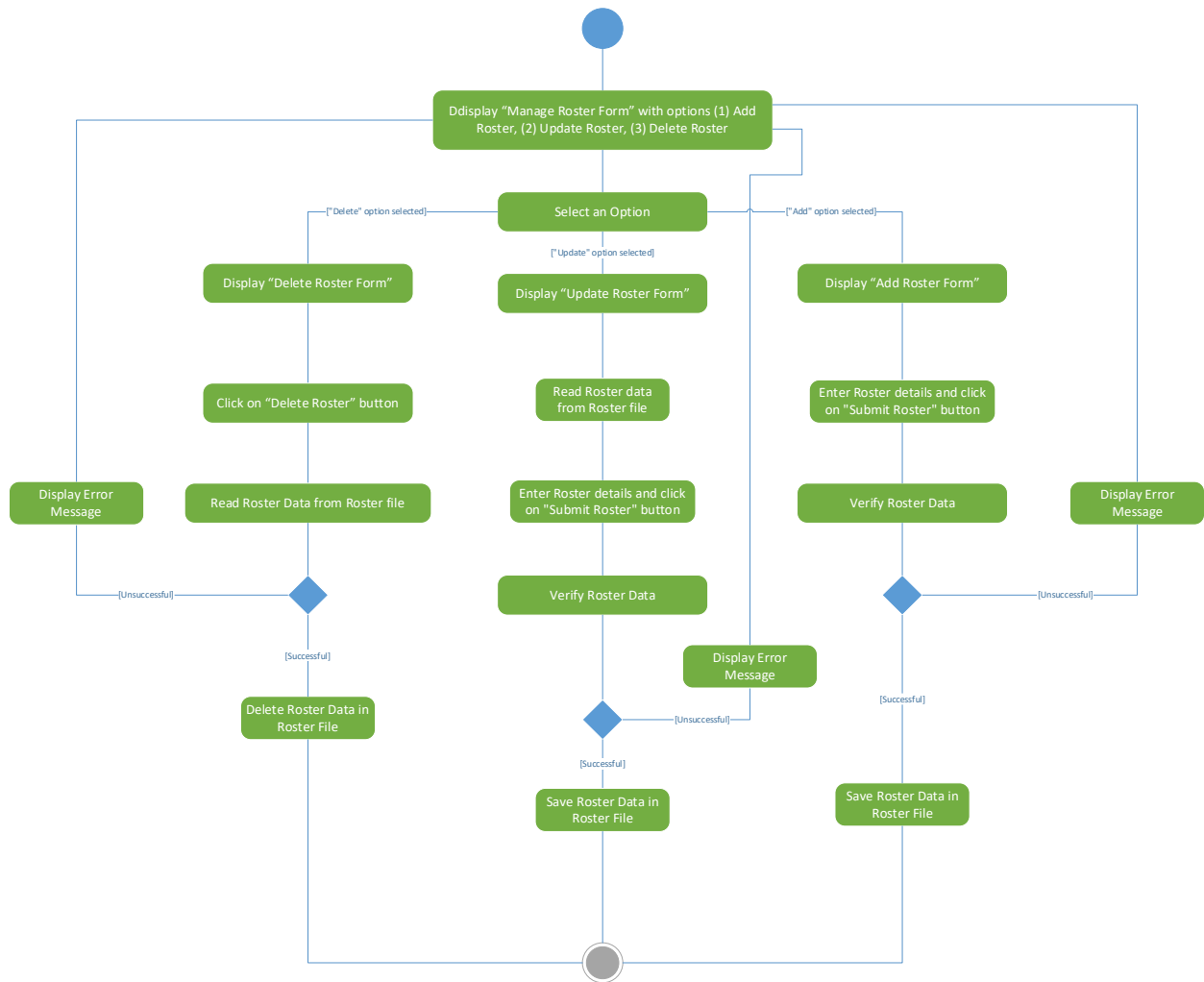
## 4.3 Activity Diagrams

### 4.3.1 Manage Login

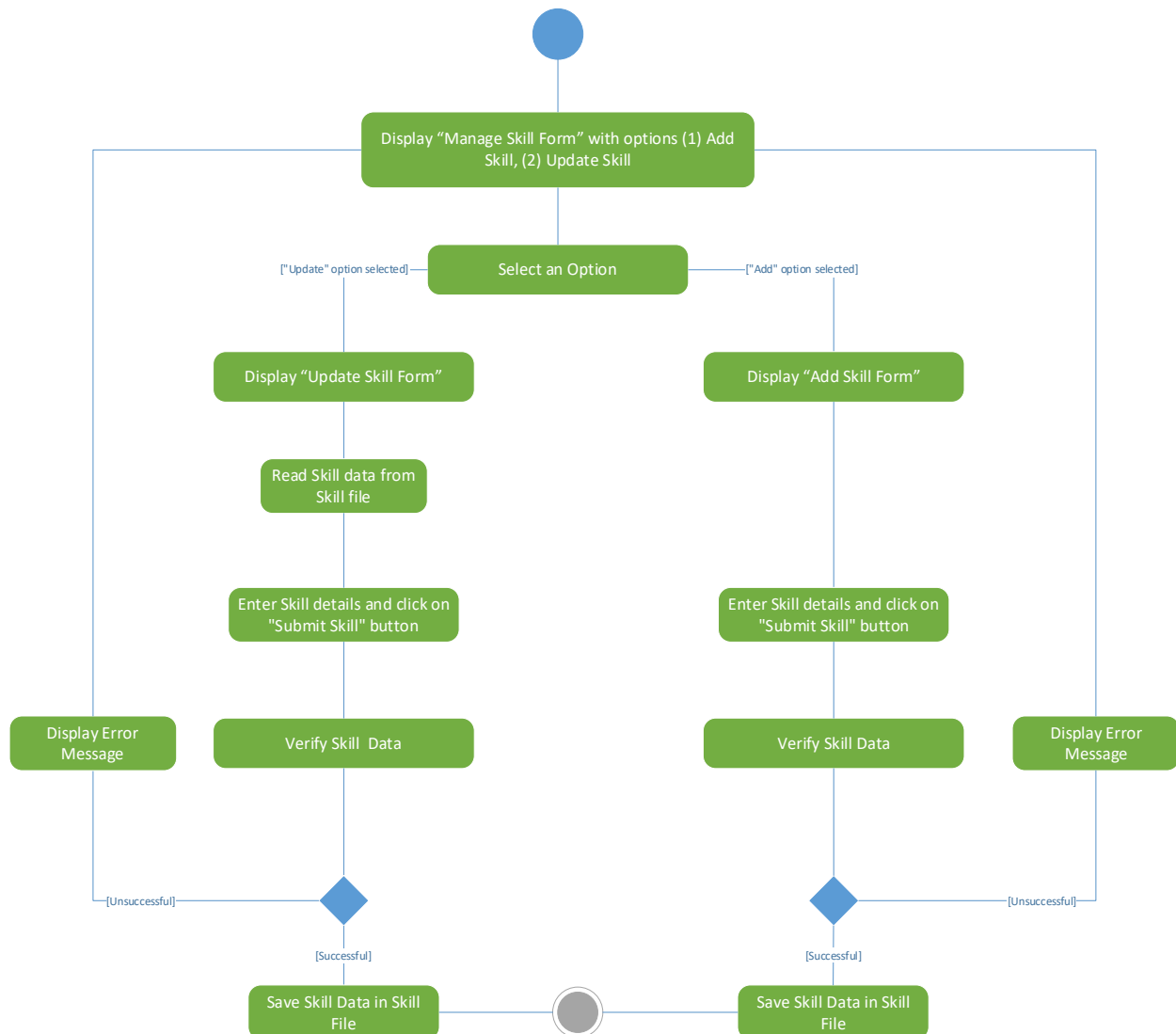




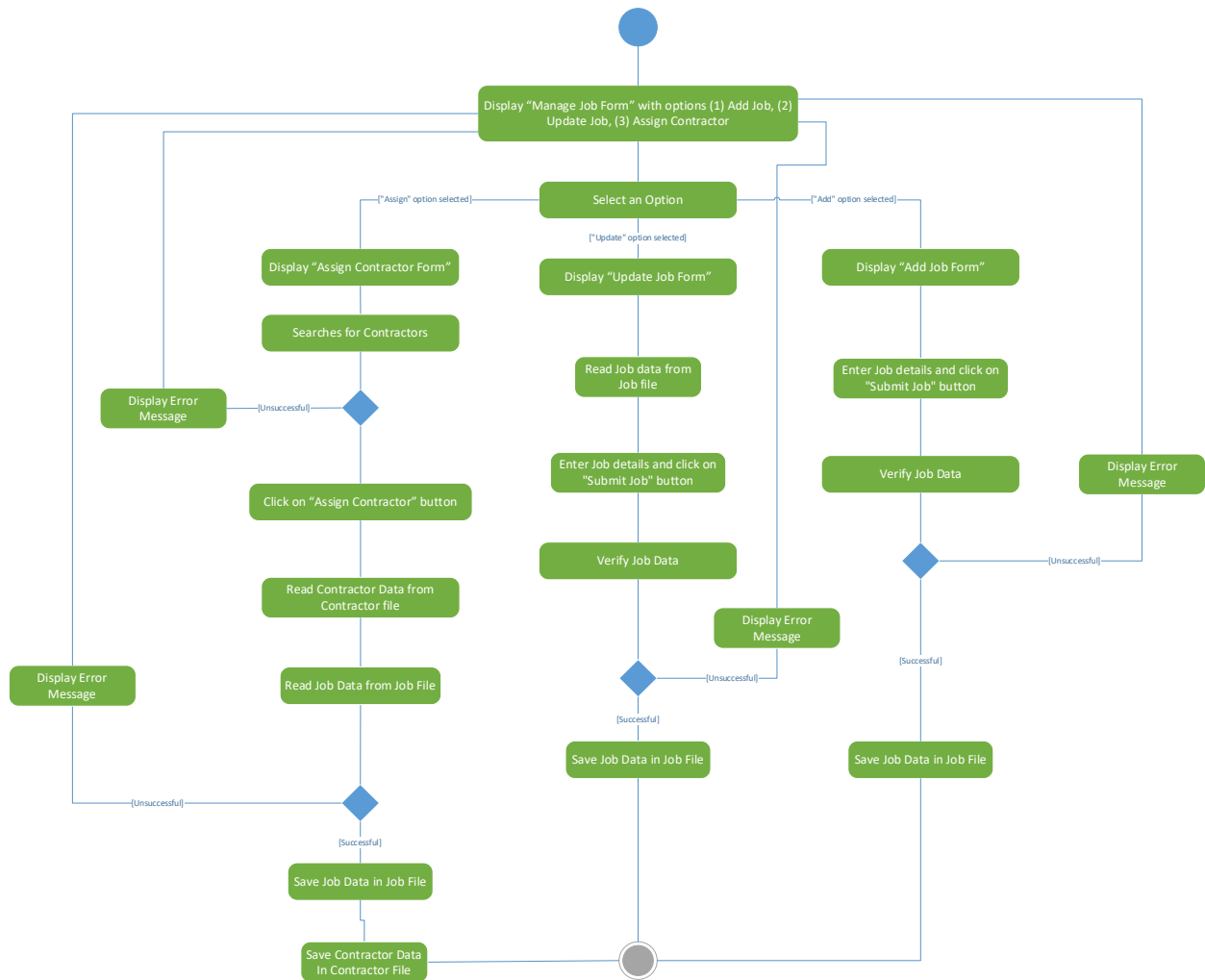
## 4.3.2 Manage Roster



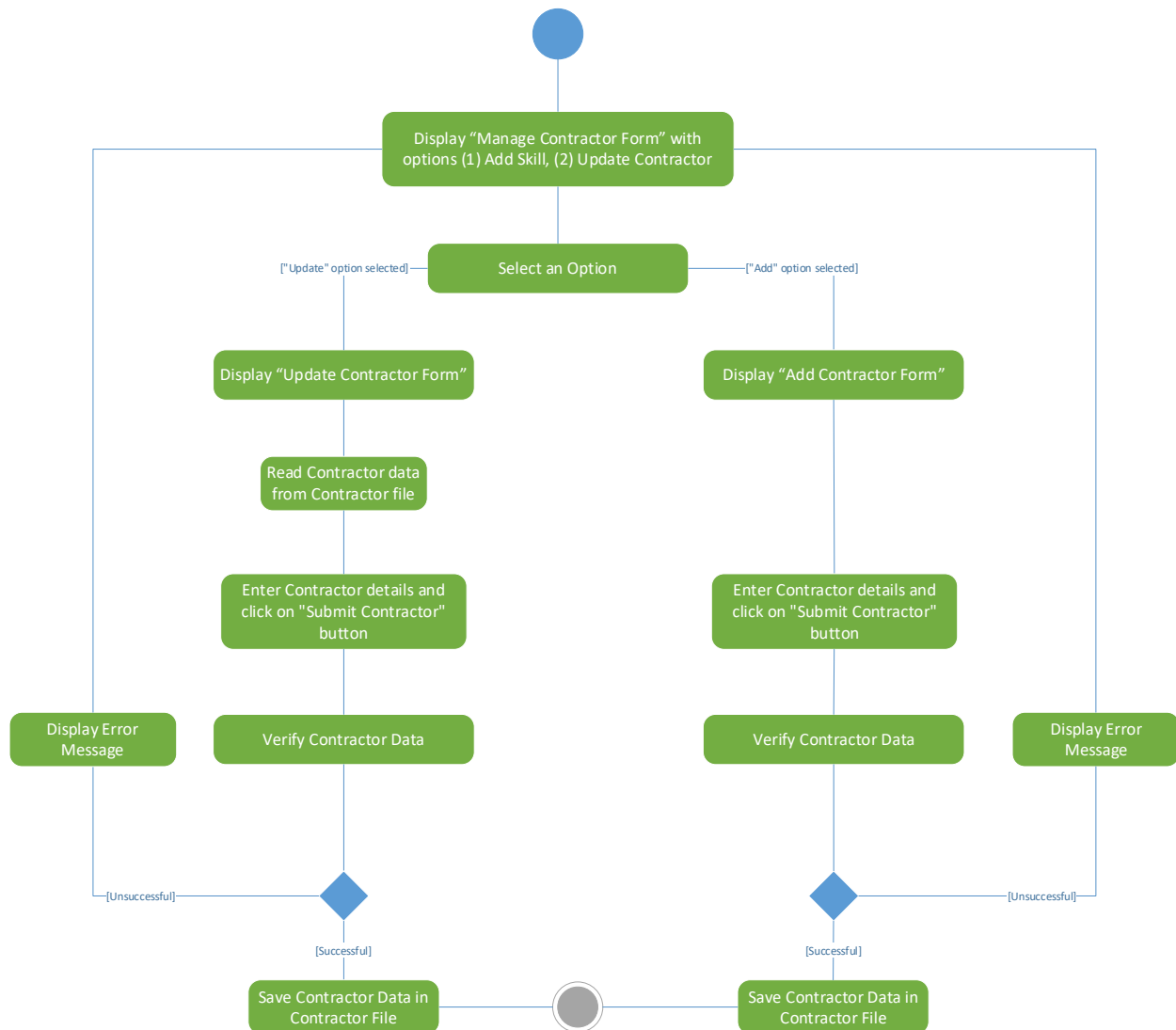
### 4.3.3 Manage Skill



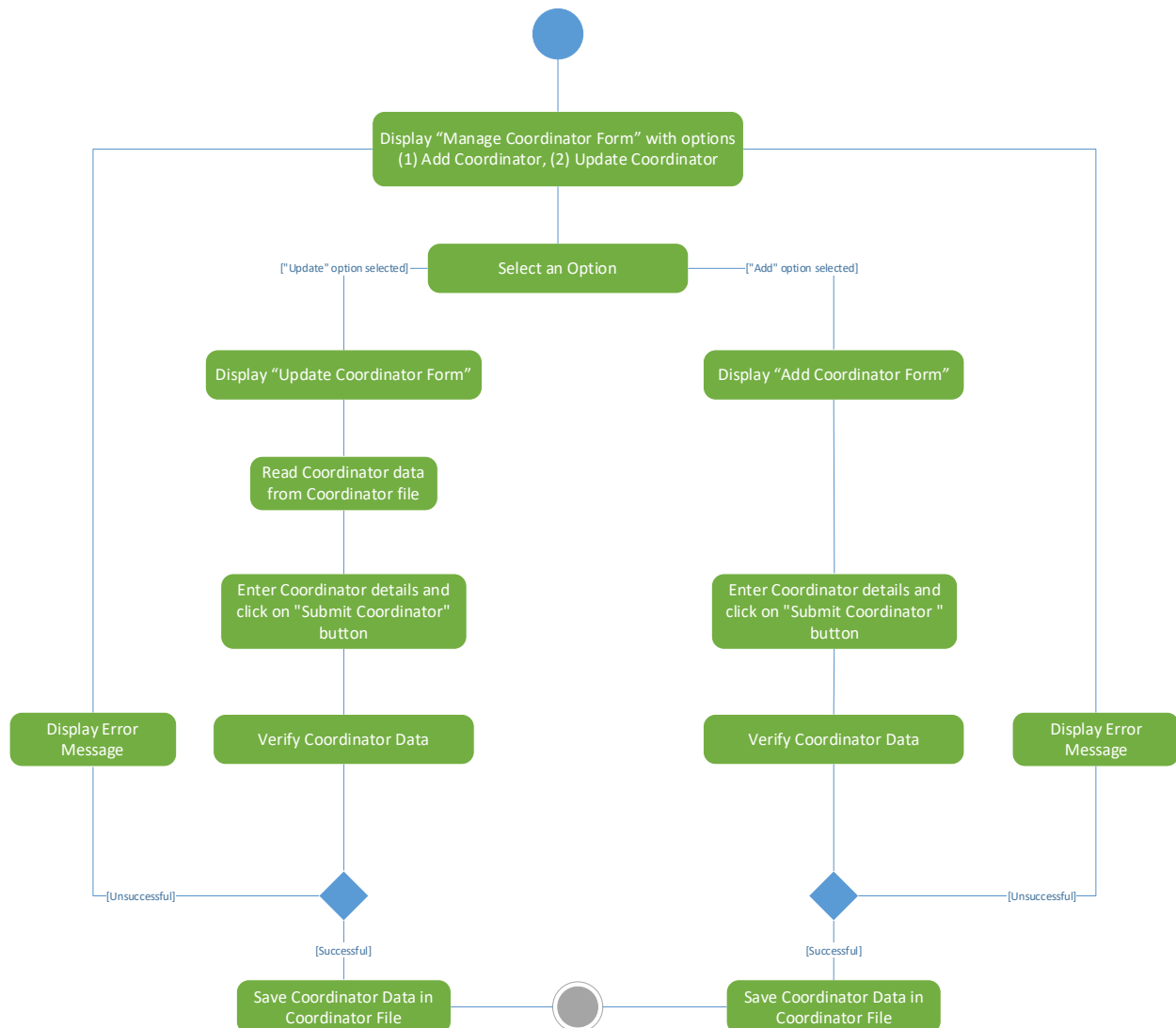
### 4.3.4 Manage Job



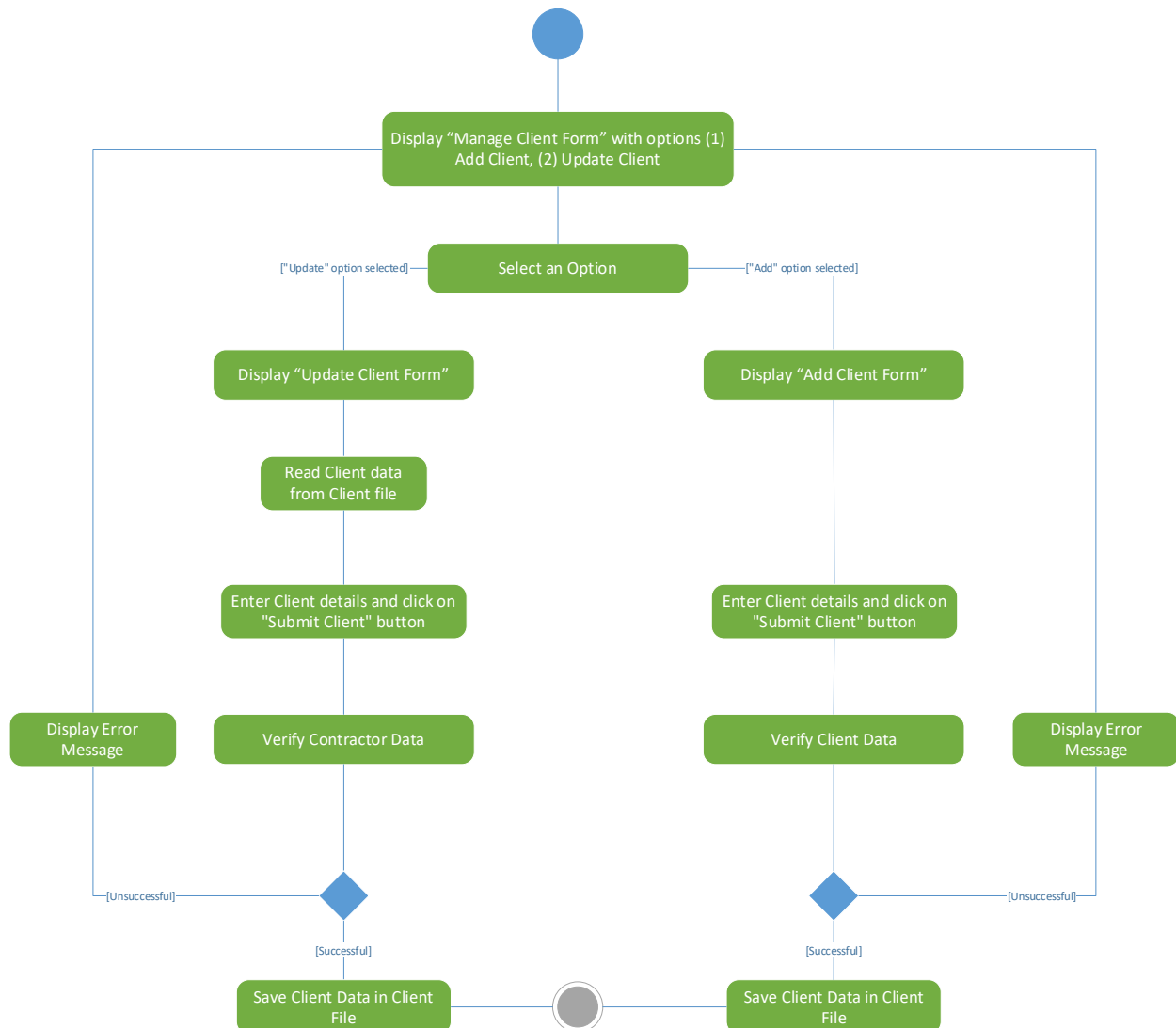
### 4.3.5 Manage Contractor



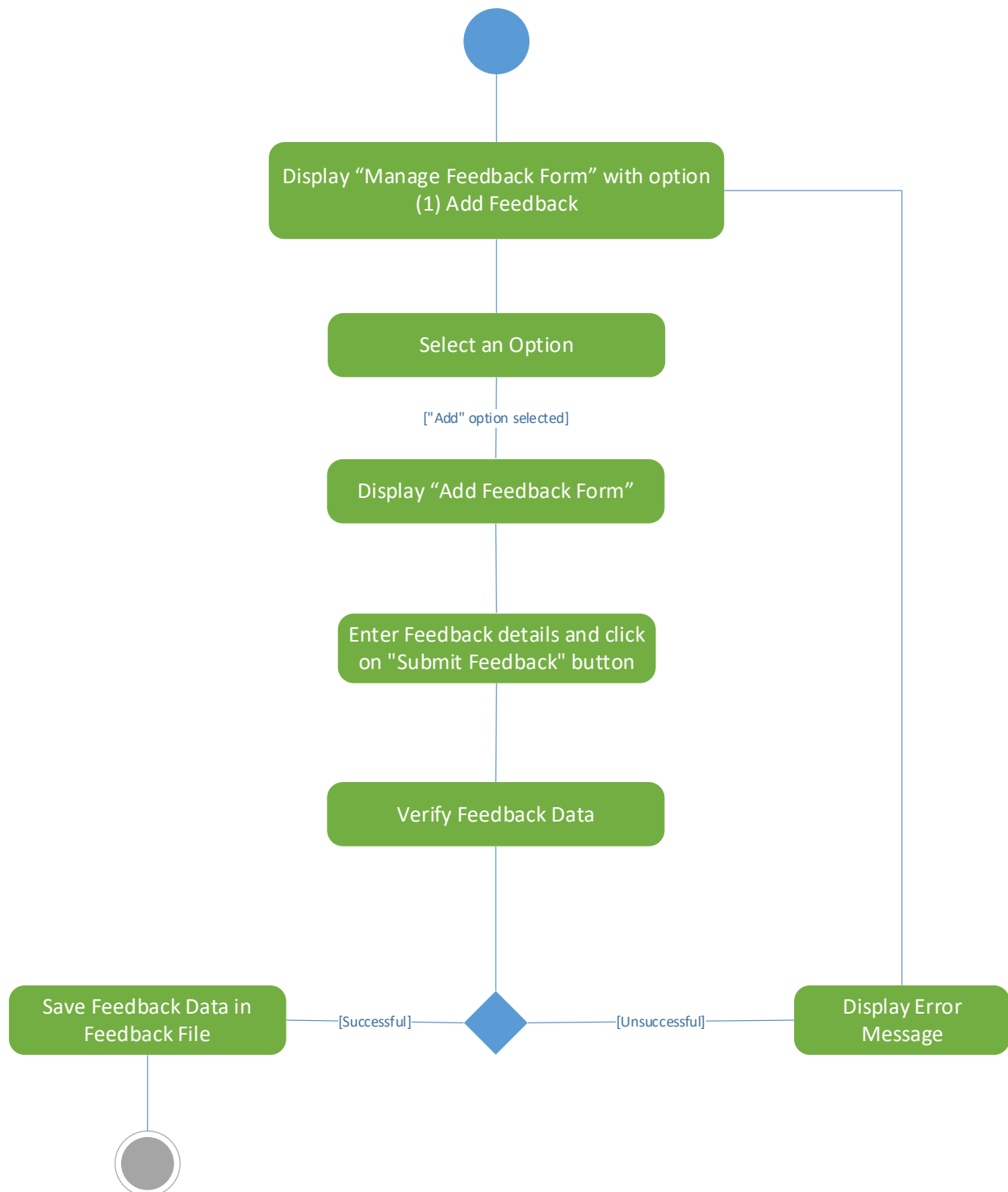
### 4.3.6 Manage Coordinator



### 4.3.7 Manage Client

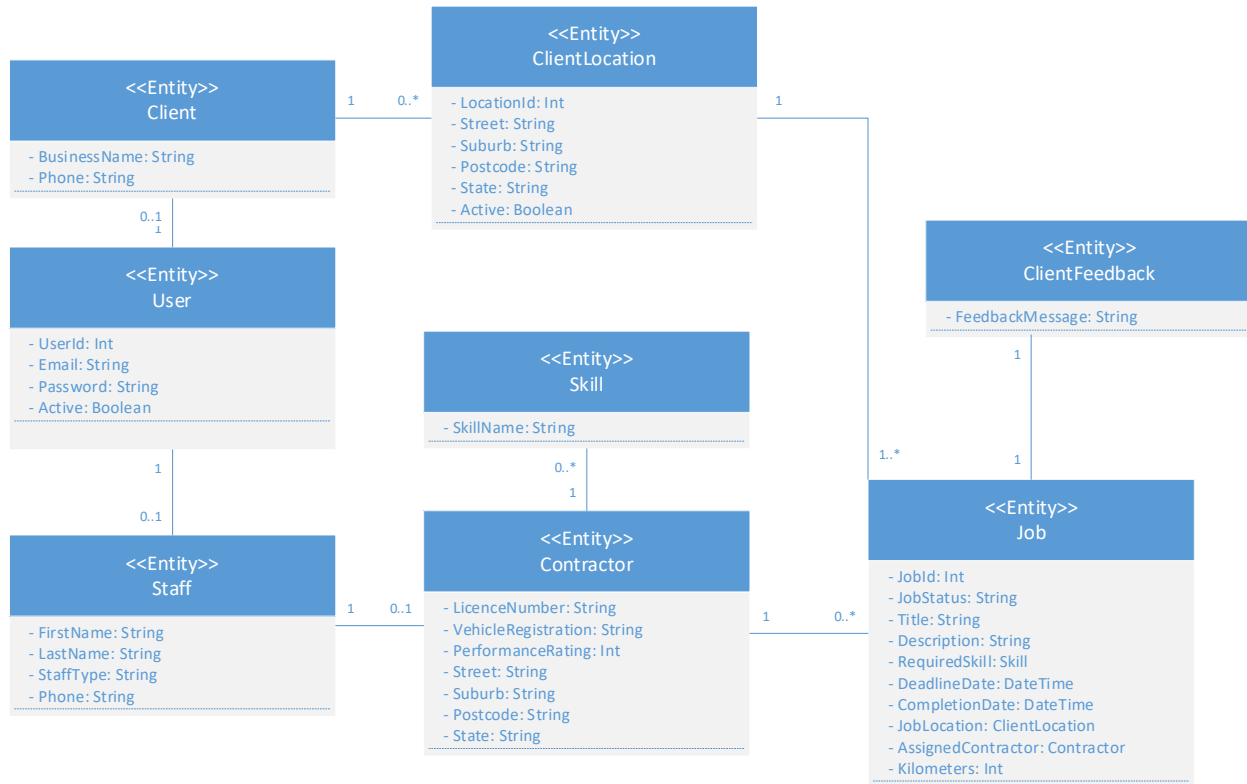


### 4.3.8 Manage Feedback



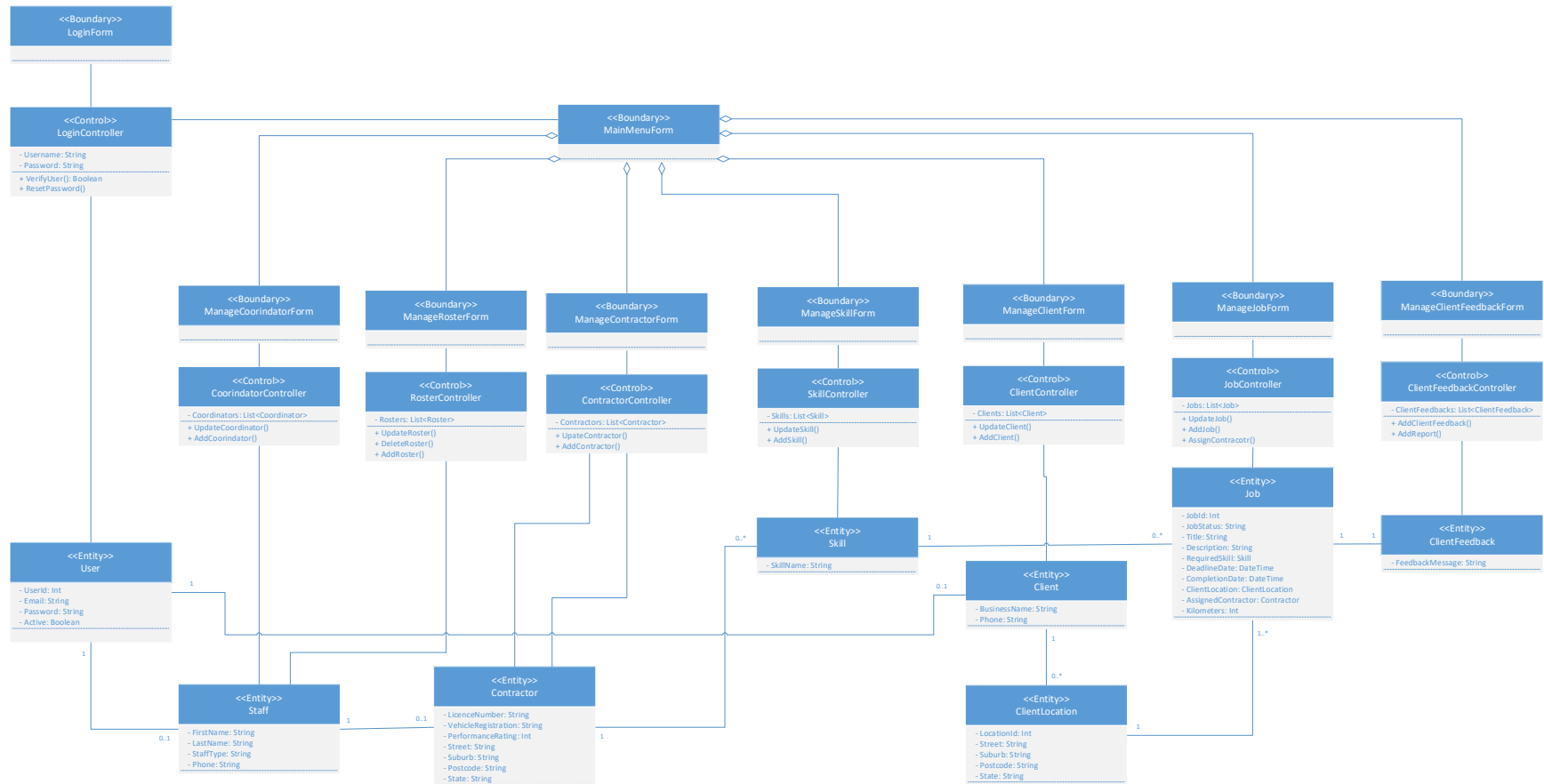
## 4.4 Class Diagrams

### 4.4.1 Static Class Diagram

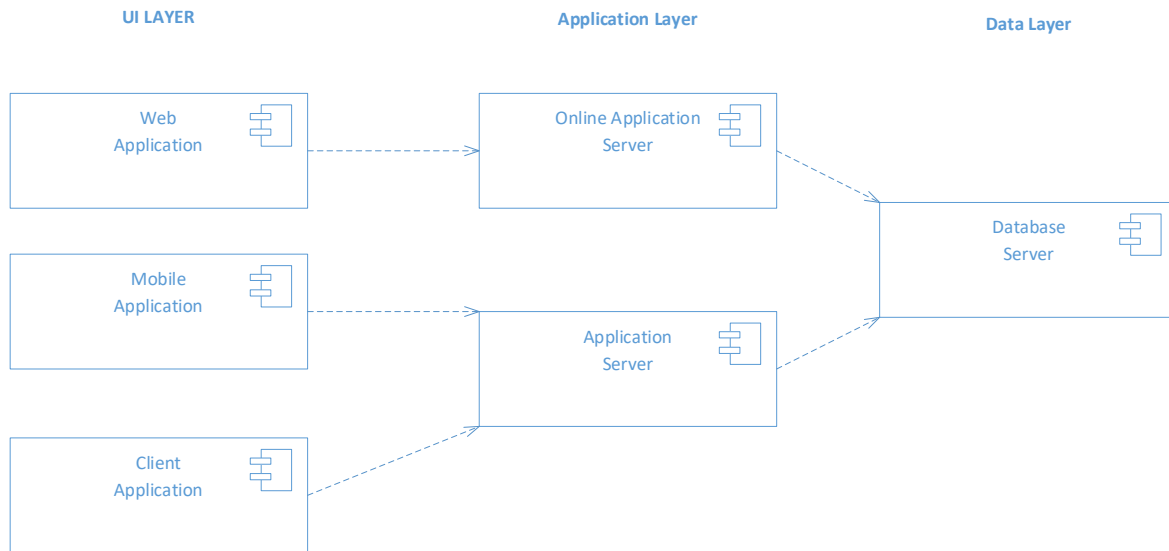




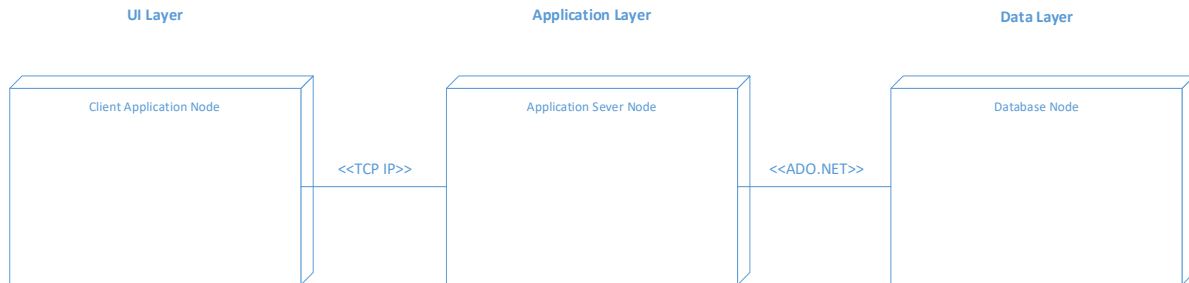
## 4.4.2 Detailed Class Diagram



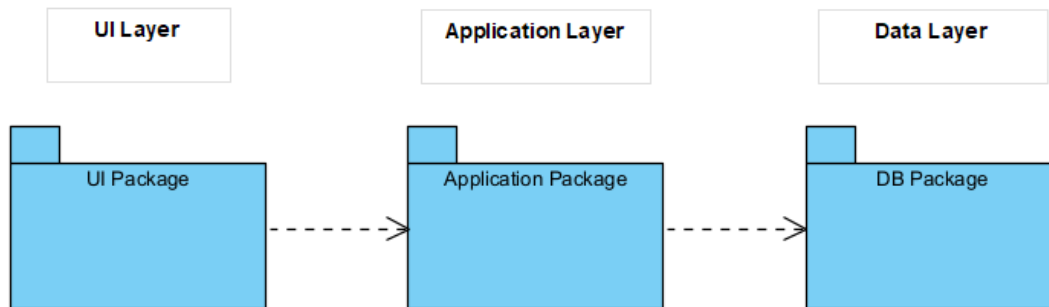
## 4.5 Component Diagram



## 4.6 Deployment Diagram



## 4.7 Package Diagram



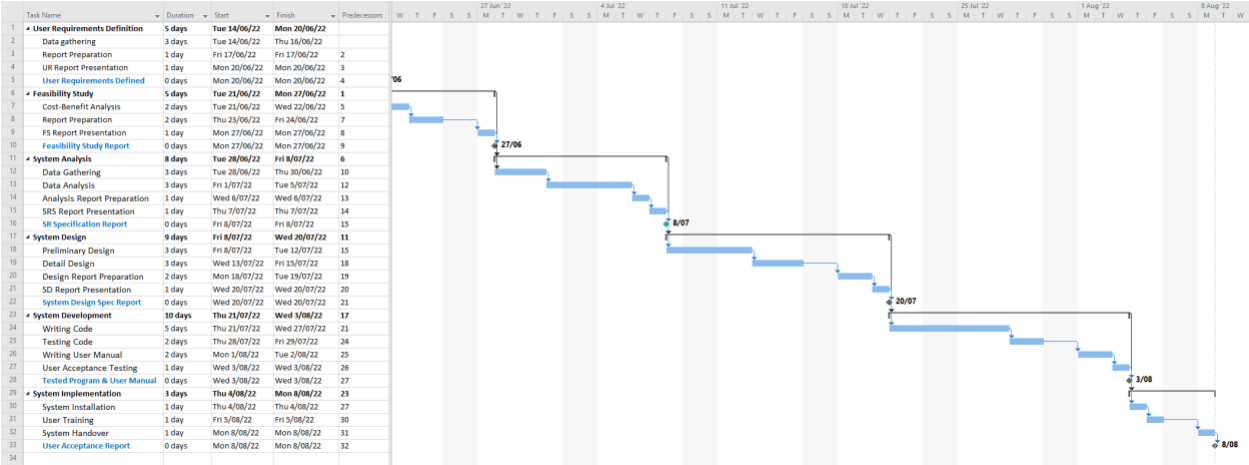
## Appendices

### 1 Appendix A: Work Breakdown Structure

T#	Task Name	Duration	Start	Finish	Predecessors	Milestone
T1	<b>User Requirement Definition</b> Data Gathering Report Preparation UR Report Presentation	<b>5 days</b> 3 days 1 day 1 day	14/6/22	20/6/22	None	User Requirements Defined
T2	<b>Feasibility Study</b> Cost-Benefit Analysis Report Preparation FS Report Presentation	<b>5 days</b> 2 days 2 days 1 day	21/6/22	27/6/22	T1	Feasibility Study Report
T3	<b>System Analysis</b> Data Gathering Data Analysis Analysis Report Preparation SRS Report Presentation	<b>8 days</b> 3 days 3 days 1 day 1 day	28/6/22	8/7/22	T2	System Requirements Specification Report
T4	<b>System Design</b> Preliminary Design Detail Design Design Report Preparation SD Report Presentation	<b>9 days</b> 3 days 3 days 2 days 1 day	8/7/22	20/7/22	T3	System Design Specification Report
T5	<b>System Development</b> Writing Code Testing Code Writing User Manual	<b>10 days</b> 5 days 2 days 2 days	21/7/22	3/8/22	T4	Tested Program & User Manual

	User Acceptance Testing	1 day				
T6	<b>System Implementation</b> System Installation User Training System Handover	<b>3 days</b> 1 day 1 day 1 day	4/8/22	8/8/22	T5	User Acceptance Report

## 2 Appendix B: Gantt Chart



### 3 Appendix C: Change Request Form (CRF)

SCR #: \_\_\_\_\_ Requirement #: \_\_\_\_\_

#### Change Request Initiation:

Originator: \_\_\_\_\_ Contact Number: \_\_\_\_\_

Date Submitted: \_\_\_\_/\_\_\_\_/\_\_\_\_ System Name: \_\_\_\_\_ Ver: \_\_\_\_\_

**Configuration Item:**      Software ☐

Documentation ☐

**Change Type:** New Requirement ☐ Requirement Change ☐ Design Change ☐ Other ☐

(If other please specify: \_\_\_\_\_)

**Reason for Change:** Legal ☐ Business ☐ Performance Tuning ☐ Defect ☐ **Priority:**

Emergency ☐ Urgent ☐ Routine ☐ Date required: \_\_\_\_/\_\_\_\_/\_\_\_\_ **Change**

**Description:** *(Detail functional and/or technical information. Use attachment if necessary)*

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**Attachments:** Yes / No

**Technical Evaluation:** *(To be completed by Contractor, Use attachment if necessary)*

Received By: \_\_\_\_\_ Date Received: \_\_\_\_/\_\_\_\_/\_\_\_\_

Assigned To: \_\_\_\_\_ Date Assigned: \_\_\_\_/\_\_\_\_/\_\_\_\_

Type of Software Affected: \_\_\_\_\_ **Modules/Screens/Tables/Files**

**Affected:**

**Documentation Affected:**

Document Title	Section #	Page #	Date Completed	Initial Requirements
Specification	_____	_____	___/___/___	_____ System Design
Specification	_____	_____	___/___/___	_____ System Test
Plan	_____	_____	___/___/	
Training Plan	_____	_____	___/___/___	_____ User
System Reference Manual	_____	_____	___/___/___	_____ System
Maintenance Manual	_____	_____	___/___/___	_____ Other
(Please Specify)	_____	_____	___/___/	

**Time Estimates:** *(To be completed by contractor, Use attachment if necessary)*

Lifecycle Stage	Est. Time	Act. Time	Date Comp.	Remarks
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Analysis/Design				
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Coding/Testing				
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Acceptance				
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**Total Hours:****Impact Analysis Needed: Yes / No***(If Yes, include impact on Technical Performance, Resources, Schedule etc.)*

**Approvals:** Change Approved ☐ Change Not Approved ☐ Hold (Future Enhancement) ☐

1     .     Signature \_\_\_\_\_     Date:     /     /

2     .     Signature \_\_\_\_\_     Date:     /     /

3     .     Signature \_\_\_\_\_     Date:     /     /

*(Please See Reverse for Instructions)*