

BSc (Hons) in Information Technology

Assignment 1 Certify Sheet

IT1060 – Software Process Modeling

Year 01 Semester II

| PROJECT ID | MLB_02.01_03 |
|-----------------|---------------------------|
| CASE STUDY NAME | Online Advertising Agency |
| CAMPUS/CENTER | Malabe Campus |

Group Details:

| | Student Registration Number | Student Name |
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| 3 | IT23160866 | U.P.H.S. ABEYWICKRAMA |
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| 5 | IT23163218 | M.H.S. PERERA |



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| We hereby | certify, |
|-----------|---|
| | The attached is our own work and no further changes will be made. |
| | We have contributed in this assignment to the best of our ability. |
| And we ur | nderstand, |
| misc | We may be subject to student discipline processes in the event of an act of academic onduct by us including an act of plagiarism or cheating. |
| | |

Group Details:

| | Student Name | Student Registration Number | Date | Signature |
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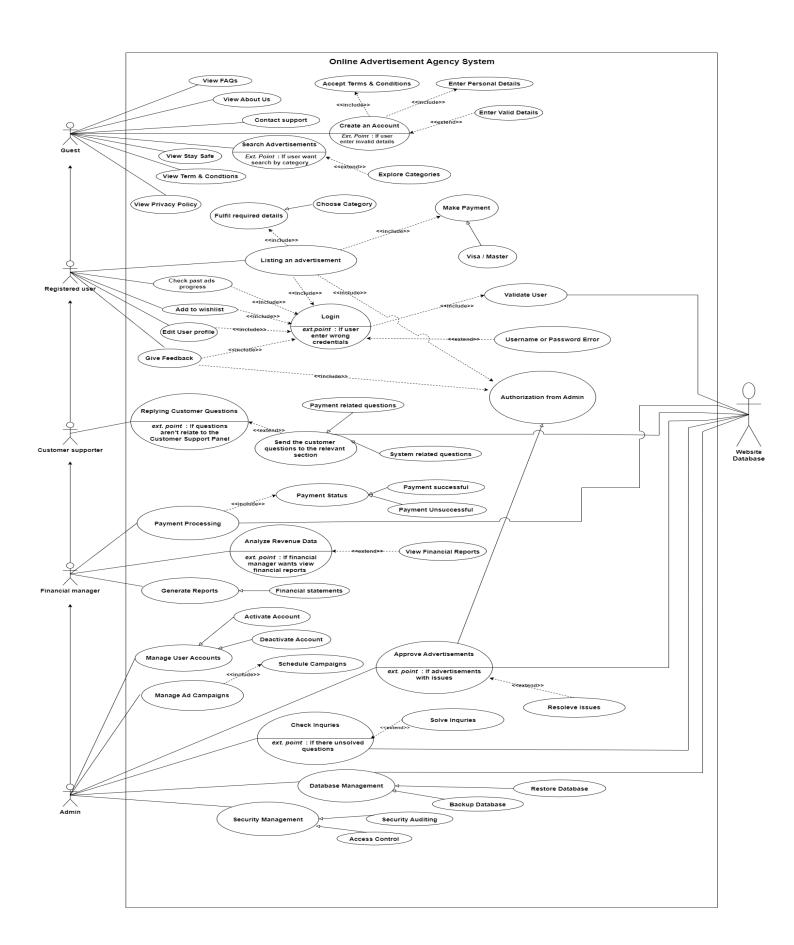
Introduction

The AdHandiya.lk Online Advertising Agency Management System provides an optimized framework for managing digital ad campaigns across websites. When visitors browse the web application, they will see features such as registration, accessible ad spots, and other related capabilities. Registration is required for clients interested in advertising, whether locally or globally. This procedure results in the establishment of user accounts, which system administrators then manage. Only registered clients can place or submit advertising on our website. However, non-registered consumers can still view advertisements without logging in. Registered users have more rights, such as adjusting ad placements via the system login.

Ad placements are overseen by system administrators, who ensure flawless scheduling and performance monitoring. Aside from user-facing features, administrators control staff accounts, ad placements, and website data. Administrators and financial managers use the system to generate reports, analyze campaign performance, and manage advertising budgets, all of which are securely accessed via login credentials. In this ecosystem, users and registered clients are the major players who engage with the platform's functions.

Financial managers, guests, registered users, customer service, and administrators all have important responsibilities as major players. Furthermore, the website database functions as a secondary actor, supporting the system's operational flow. The system's functioning and interaction paths become obvious through use case diagrams and scenarios, allowing for a thorough knowledge of its operational dynamics in the online advertising arena.

Use Case Diagram



Use Case Scenarios

| Number | UCS01 | | |
|--------------------|--|--|--|
| Student ID | IT231643 | 76 | |
| Name | Create an | Create an account | |
| Summary | This use o | case scenario shows, how to create a new account as a new user. | |
| Priority | 01 | | |
| Pre-condition (S) | The user l | nas access to the page where registration is required. | |
| Post-condition (S) | The user l | nas successfully created an account and has access to the website. | |
| Primary actor (S) | Guest | | |
| Trigger | The user has chosen to register. | | |
| Main scenario | Step | Action | |
| | 1. | Visit the web application. | |
| | 2. | Click the register option. | |
| | 3. | The system asks to enter personal information to create an account. | |
| | 4. | The system is checking the provided information is valid. | |
| | 5. | The user has a button to create an account. | |
| | 6. Now the user can log in using user credentials. | | |
| Extensions | Step | Branching Action | |
| | 4(a). | If the user information is not valid, the system prompts a message with invalid information. | |
| | 4(b). | The system asks to re-enter the details. | |

| Number | UCS02 | | |
|--------------------|-------------|--|--|
| Student ID | IT231643 | IT23164376 | |
| Name | Login | Login | |
| Summary | This use of | case scenario describes, how to log in to the system. | |
| Priority | 01 | | |
| Pre-condition (S) | The user l | has their own credentials. | |
| | The user l | has access to the login page. | |
| Post-condition (S) | The user | can access the user dashboard. | |
| Primary actor (S) | Registere | d user | |
| Trigger | The regis | tered user navigates to the website and wants to access their account. | |
| Main scenario | Step | Step Action | |
| | 1. | Visit the web application. | |
| | 2. | The user has the option to log in. | |
| | 3. | The system navigates to the login page and asks to enter username and password. | |
| | 4. | The user has the option to submit the login form. | |
| | 5. | The system validates the entered credentials. | |
| | 6. | The system gives access to the user dashboard and other fetchers of the website. | |
| Extensions | Step | Branching Action | |
| | 4(a). | If the user information is not valid, the system prompts a message with invalid information. | |
| | 4(b). | The system asks to re-enter the details. | |

| Number | UCS03 | | |
|--------------------|--------------------------|---|--|
| Student ID | IT23164376 | | |
| Name | Listing an advertisement | | |
| Summary | This user | case scenario describes, how to create a new ad and upload it to the system. | |
| Priority | 01 | | |
| Pre-condition (S) | | must have registered and logged in to the system. t have a product to advertise. | |
| Post-condition (S) | | rtisement is successfully uploaded to the platform. rtisement is visible to other users. | |
| Primary actor (S) | Registere | d User | |
| Trigger | User acce advertiser | ss the web application home page and a relevant section for listing an ment. | |
| Main scenario | Step | Action | |
| | 1. | Visit the web application. | |
| | 2. | Log in to the system using User credentials. | |
| | 3. | The user can click the "upload your ad" button. | |
| | 4. | The system navigates to the form to upload the advertisement. | |
| | 5. | Add all the required details regarding the advertisement. | |
| | 6. | The user can click the upload ad button. | |
| | 7. | The system navigates to the payment portal and asks to choose a payment (visa/master) Option. | |
| | 8. | The user must add payment details and click the pay now button. | |
| | 9. | The system shows the message "successfully uploaded". | |
| | 10. | The system processes the advertisement and makes it live for other users to view. | |
| Extensions | Step | Branching Action | |
| | 2(a). | If credentials are invalid, the system asks to re-enter details. | |
| | 5(a). | If the user misses any details, the system prompt message fulfills your details. | |
| | 8(a). | If the user misses any details, the system asks them to check again and fulfill the required details. | |
| | 8(b). | The system prompts a message your details are not valid, and the system asks you to re-enter details. | |
| | 9(a). | The system shows an error message. | |

| Number | UCS04 | |
|--------------------|---|--|
| Student Id | IT23160866 | |
| Name | Add to V | Vishlist |
| Summary | | and view items for future reference. |
| Priority | 02 | |
| Pre-condition (S) | The user | must be logged into the web application. |
| Post-condition (S) | The user | can view the added advertisements in their Wishlist for future reference. |
| Primary actor (S) | Registere | ed User |
| Trigger | The trigger for the "Add to Wishlist" feature occurs when the user selects the option to add an ad to their Wishlist by clicking a designated icon. | |
| Main scenario | Step | Action |
| | 1. | Visit the home page of the web application. |
| | 2. | Log in to the user account. |
| | 3. | The user navigates to an ad they wish to add to their Wishlist. |
| | 4. | The user clicks on the "Add to Wishlist" icon associated with the advertisement. |
| | 5. | The system updates the user's Wishlist by adding the selected ad. |
| | 6. | The system provides feedback confirming that the advertisement has been successfully added to the user's Wishlist. |
| | 7. | Checking the Wishlist in the user profile. |
| Extensions | Step | Branching Action |
| | 2(a). | If credentials are invalid, the system asks to re-enter details. |
| | 7(a). | If the user does not need the advertisement anymore, the user decides to remove the ad. |
| | 7(b). | While viewing their Wishlist, the user decides to sort or filter the items based on specific criteria (e.g., price, category, date added). |
| Open Issues | | open issue is Wishlist organization and management, which involves ag the user experience and handling capacity limits. |

| Number | UCS05 | | | |
|-------------------|-------|---|--|--|
| Student Id | IT23 | IT23160866 | | |
| Name | Edit | Edit user profile | | |
| Summary | The | user wants to edit the profile and change the password and details. | | |
| Priority | 01 | | | |
| | | re editing their profile, the user must be authenticated and logged into the m. This ensures that only authorized users can make changes to their profiles. | | |
| | | editing the profile, the changes made by the user should be successfully ed to the profile data. This includes fields such as name, email, password, etc. | | |
| Primary actor (S) | Regis | tered User | | |
| Trigger | The r | egistered user wants to edit the profile. | | |
| Main scenario | Step | Action | | |
| | 1. | Visit the home page of the web application. | | |
| | 2. | Log in to the user account. | | |
| | 3. | The user navigates to the user dashboard. | | |
| | 4. | The user clicks on the "Manage my account" button. | | |
| | 5. | The system displays a form with editable fields pre-filled with the user's current profile data. | | |
| | 6. | The user modifies the desired fields in the profile form to update their information. | | |
| | 7. | The user confirms their changes and submits the edited profile form. | | |
| Extensions | Step | Branching Action | | |
| | 2(a). | If credentials are invalid, the system asks to re-enter details. | | |
| | 5(a). | The system displays an error message indicating the validation error or errors next to the corresponding fields in the profile form. | | |
| | 5(b). | After making corrections, the user resubmits the edited profile form for validation and update. | | |
| | | At any point during the editing process, the user decides to cancel the profile edit operation. | | |
| | 7(b). | If the user confirms cancellation, the system exits the profile editing mode without saving any changes. | | |
| | | to ensure the security of user profile data during the editing process, ularly when transmitting sensitive information over the network. | | |

| Number | UCS06 | UCS06 | |
|--------------------|---|---|--|
| Student Id | IT231643 | 76 | |
| Name | Contact su | apport | |
| Summary | This user | case scenario describes, how the user gets contact support. | |
| Priority | 01 | | |
| Pre-condition (S) | The user l | nas access to the system. | |
| Post-condition (S) | The user of | can send a message that he wants to know. | |
| Primary actor (S) | User | | |
| Trigger | The user a | asks questions from customer service. | |
| Main scenario | Step | Step Action | |
| | 1. | The user logs in to the system. | |
| | 2. | The system validation user details. | |
| | 3. | The system shows the home page, and the user can click the Contact Us button. | |
| | 4. | The system is displaying a contact support form. | |
| | The user must enter the personal details and questions that the user with know. | | |
| | 6. The user clicks the submit button and the system prompts the message "successful." | | |
| Extensions | Step | Branching Action | |
| | 2(a). | The system prompts a message the details are invalid. | |
| | 2(b). | The system prompts a message to re-enter the user credentials. | |

| Number | UCS07 | | |
|----------------------|--|---|--|
| Student ID | IT23166 | IT23166110 | |
| Use Case Name | Payment Processing | | |
| Summary | The fina | ncial manager processes payments and updates payment status. | |
| Priority | 01 | | |
| Pre-condition (S) | The fina dashboar | ncial manager must have access to the system and financial manager d. | |
| Post-condition (S) | payment | t status is updated. | |
| Primary actor (S) | Financia | l Manager | |
| Trigger | Receipt | of a payment request or scheduled payment type. | |
| Main scenario | Step | Action | |
| | 1. | Visit the web application. | |
| | 2. | Log in with financial manager credentials. | |
| | 3. | Click on payment processing on the dashboard. | |
| | 4. | The system displays a list of pending payment transactions. | |
| | 5. | The financial manager checks each transaction for accuracy and completeness. | |
| | 6. | Click on approve for transactions that meet all criteria. | |
| | 7. | The system updates the transaction status to approved and notifies the registered user. | |
| | 8. | Click on deny for transactions that are incomplete or invalid. | |
| | 9. The system updates the transaction status to denied and notifies the registered user. | | |
| Extensions | Step Branching Action | | |
| | 2(a). | Double-check the username and password. | |
| | 2(b). | Determine the username and password's validity status. | |
| | 3(a). | Contact the system administrator for access. | |
| | 5(a). | Investigate and fix any inaccuracies. | |
| | 6(a). | Review the criteria and check them against the transaction information. | |

| Number | UCS08 | UCS08 | | |
|----------------------|------------|---|--|--|
| Student ID | IT23166 | IT23166110 | | |
| Use Case Name | Generate | Generate Reports | | |
| Summary | The fina | ncial manager prepares financial statements for examination and analysis. | | |
| Priority | 02 | | | |
| Pre-condition (S) | The fina | ncial manager has logged into the system. | | |
| Post-condition (S) | Financia | l statements are created and ready for examination. | | |
| Primary actor (S) | Financia | l Manager | | |
| Trigger | End of the | he reporting period. | | |
| Main scenario | Step | Action | | |
| | 1. | Visit the web application. | | |
| | 2. | Log in with financial manager credentials. | | |
| | 3. | Click on Generate Reports on the dashboard. | | |
| | 4. | The system prompts the financial manager to enter the date range or criteria for the financial statement. | | |
| | 5. | The financial manager inputs the relevant information and verifies the request. | | |
| | 6. | The system processes the request and creates financial statements. | | |
| | 7. | The financial manager reviews the financial statements to ensure they are accurate and complete. | | |
| | 8. | If satisfied, the financial manager stores or downloads the financial statements for future review. | | |
| Extensions | Step | Branching Action | | |
| | 1(a). | Troubleshoot internet connection. | | |
| | 2(a). | Double-check the username and password. | | |
| | 2(b). | Determine the username and password's validity status. | | |
| | 3(a). | Contact the system administrator for access. | | |
| | 4(a). | If the financial manager must make further changes to the financial statements, they alter the parameters accordingly. | | |
| | 7(a). | If errors or falls are discovered in the financial statements, the financial manager investigates and resolves the problem. | | |

| Number | UCS09 | | |
|--------------------------|--|--|--|
| Student ID | IT23156074 | | |
| Name | Revenue data | | |
| Summary | The financial manager is responsible for analyzing revenue data to make informed financial decisions for the organization. | | |
| Priority | 01 | | |
| Pre-condition (S) | The fin | The financial manager must have access to the system database. | |
| | The fin | The financial manager has the necessary tools and software to analyze the data. | |
| Post-condition (S) | The fin | ancial manager has made a successful revenue data report. | |
| Primary actor (S) | Financi | Financial manager | |
| Trigger | New re | venue data can be received. | |
| Main scenario | Step | Action | |
| | 1. | Visit the home page of the web application. | |
| | 2. | Log in to the system using their own credentials. | |
| | 3. | The financial manager can go to the dashboard. | |
| | 4. | The financial manager accesses the revenue data from the system database. | |
| | 5. | The financial manager has the option to get data up to any date using the database. | |
| | 6. | The financial manager can create a report according to that data. | |
| | 7. | Based on that, the financial manager can recommend improving the revenue. | |
| Extensions | Step | Branching Action | |
| | 1(a). | If the entered credentials are wrong, the system asks to re-enter the username and password. | |
| | 4(a). | If the financial manager can't access the database, the manager can contact the admin who has direct access to the database. | |

| Number | UCS10 | | |
|--------------------|--|---|--|
| Student ID | IT2315 | IT23156074 | |
| Name | Custon | ner support team | |
| Summary | Answe | ring customer's problems. | |
| Priority | 01 | | |
| Pre-condition (S) | The customer has contacted the customer support team by phone, email, or chat. | | |
| | Customer support team member has access to the needed tools and resources to support the customer. | | |
| Post-condition (S) | Customers are successful in solving problems and are satisfied with the support provided to them. | | |
| Primary actor (S) | Custome | er support | |
| Trigger | The user | r asked questions from the Customer support team. | |
| Main scenario | Step | Action | |
| | 1. | Visit the home page of the web application. | |
| | 2. | Log in to the user account. | |
| | 3. | Customers receive notification of a new inquiry regarding an online advertising agency. | |
| | 4. | Review the customer's account information and campaign information to understand the problem. | |
| | 5. | Contacting the customer and gathering more information will clarify the problem. | |
| | 6. | Troubleshoot issues by testing the advertising platform, analyzing data, and consulting with team members if needed. | |
| | 7. | Provide a solution recommendation to the customer by explaining the steps to solve the problem. | |
| Extensions | Step | Branching Action | |
| | 6(a). | If the problem needs further resolution the team member documents the details and escalates the issue to a senior member or technical department. | |
| | 7(a). | If the customer is dissatisfied with the resolution, the issue is escalated to a supervisor for further assistance. | |

| Number | UCS1 | 1 | | |
|----------------------|--|---|--|--|
| Student ID | IT23163218 | | | |
| Use Case Name | Approve advertisement. | | | |
| Summary | This so | cenario describes about, how to review and approve the advertisement | | |
| Priority | 2 | | | |
| Pre-condition | The ad | The admin must have access to the system and admin dashboard. | | |
| Post-condition | The admin can review and approve ads. | | | |
| Primary actor | Admin | | | |
| Trigger | The admin reviews advertisements for compliance quality, and adherence to Platform guidelines. | | | |
| Main scenario | Step | Action | | |
| | 1 | Log in to the system using admin credentials. | | |
| | 2 | The system validates admin details. | | |
| | 3 | Navigate to the admin dashboard. | | |
| | 4 | Click on "Review Advertisements" to check uploaded advertisement by user. | | |
| | 5 | Click the advertisement that are on the waiting list to approve. | | |
| | 6 | Check Advertisement Details, Edit details and Save Details | | |
| | 7 | Carefully check the advertisement to ensure that it adheres varies criteria such as, legal compliance, platform guidelines, ethical consideration likewise. | | |
| | 8 | The admin has an option to approve ads. | | |
| Extensions | Step | Branching Action | | |
| | 1a | The system asks to re-enter the correct username and password. | | |
| | 2a | System shows the message, detail are invalid and exit. | | |
| | 2b | System display message to re-enter username and password. | | |
| | 6a | Admin edit wrong details. | | |
| | 6b | System fails to save edited details. | | |
| | 7a | Correct the advertisement issue or inform user to follow the guidelines. | | |
| | 8a | The admin rejects the advertisement. | | |

| Number | UCS12 | 2 | |
|----------------------|---|---|--|
| Student ID | IT23163218 | | |
| Name | Manage User Accounts | | |
| Summary | This scenario describes how an admin manages user accounts within the system. | | |
| Priority | 2 | | |
| Pre-condition | The admin must have access to the system and admin dashboard. | | |
| Post-condition | The admin successfully manages user accounts. | | |
| Primary actor | Admin | | |
| Trigger | The admin needs to perform actions related to user account management. | | |
| Main scenario | Step | Action | |
| | 1 | Log in to the system using admin credentials. | |
| | 2 | The system validates admin details. | |
| | 3 | Navigate to the admin dashboard. | |
| | 4 | Click on "Manage User Accounts" to access user account management. | |
| | 5 | View list of user accounts. | |
| | 6 | Select a user account to manage. | |
| | 7 | Make necessary changes to the user account. | |
| | 8 | Save changes. | |
| | 9 | Exit user account management. | |
| Extensions | Step | Branching Action | |
| | 7a | Edit user details. | |
| | 7b | activate or deactivate user account. | |
| | 7c | Assign or modify user roles and permissions. | |
| | 7d | View user activity log. | |
| | 8a | System fails to save edited user account details. | |
| | 8b | Send notifications to the user about any changes made to their account. | |

Name : W. M. T. P. K. Wanasinghe

Student ID : IT23164376

| | Use Case Diagram: |
|----------------------|--|
| | Use case actor: Guest |
| Section Worked On | <u>Use Cases</u> |
| | Creating an account |
| | Search advertisementsView FAQs, about us, contact support, Stay safe |
| | Teams & conditions, privacy policy. |
| | Use case scenarios |
| | • Creating an account – UCS01 |
| | • Login – UCS02 |
| | Listing an advertisement – UCS03 Contact support – UCS06 |
| Special Contribution | Providing information and giving logical ideas to design use cases. Help to design, draw, and complete the use case diagram. Review the project to find errors before finalizing. |
| Challenge Faced | While designing, there were some entanglements in thinking logically about the relationship between use cases. Handling the whole project is also a massive challenge. I have some time management problems. |

Name : U.P.H.S ABEYWICKRAMA

Student ID: IT23160866

| | Use Case Diagram: |
|----------------------|---|
| | Use Case actor: Registered User |
| | <u>Use Cases</u> ● Add to Wishlist |
| Section Worked On | Edit user profile |
| | Give Feedback |
| | <u>User Cases Scenarios</u> |
| | • Add to Wishlist – UCS04 |
| | • Edit user profile – UCS05 |
| Special Contribution | Introducing novel ideas, techniques, and approaches that substantially improve project outcomes or efficiency. |
| Challenge Faced | Introducing new ideas or processes may face resistance from team members or stakeholders accustomed to existing practices. Not being able to provide the technical facilities designed in the sketch to the user. Handling the whole project is also a massive challenge. |

Name : D. D. HAPUTHANTHRI

Student ID : IT23166110

| | H C D |
|----------------------|---|
| | Use Case Diagram: |
| Section Worked On | Use case actor: Financial Manager |
| | <u>Use Cases</u> |
| | Payment ProcessingGenerate Reports |
| | Use case scenarios |
| | Payment Processing – UCS07 Generate Reports – UCS08 |
| | |
| | |
| | |
| Special Contribution | Edited the final PDF version for submission of the assignment. Assistance with designing, drawing, and finalizing the use case diagram. Review the project for mistakes before finishing. |
| | |
| | |
| Challenge Faced | I encounter challenges with time management. Handling the whole project is also a massive challenge. The topic was unfamiliar to me, and my knowledge was limited, making the assignment challenging. |
| | |
| | |

Name - R.M.H.I Rathnayake

Student Id - IT23156074

| | Use Case Diagram: |
|----------------------|---|
| | Use case actor: Customer Supporter |
| Section Worked On | <u>Use case</u> |
| | • Contact support team. |
| | <u>Use case scenarios</u> |
| | Answering customer problems. – UCS09 Revenue data. – UCS10 |
| | |
| Special Contribution | Provided ideas to draw the use case diagram. |
| Challenge Faced | There was a time management problem. Handling the project is also a massive challenge. |
| | |

Name : M.H.S. Perera

Student ID : **IT23163218**

| | Use Case Diagram: |
|----------------------|--|
| | Use case actor: Admin |
| Section Worked On | <u>Use cases</u> |
| | Approve Advertisements Check Inquiries Manage User Accounts Manage Ad Campaigns Database Management Security Management Use case scenarios Approve Advertisements – UCS11 Manage User Accounts – UCS12 |
| Special Contribution | Help to Design, draw, and complete the use case diagram. Providing information and ideas to design use cases and all others including, extend, generalization relationships between use cases. |
| Challenge Faced | While designing and discussing part was a little bit challenging, because we had to discuss and decide all the things through online communication. Handling the whole project was a little bit difficult because there are multiple use cases linked with Admin(actor). Also, there were some assignment submissions related to other modules, So the time management part was a bit difficult. |