



Sri Lanka Institute of Information Technology

- Consulting Company System -
“RAVANA Engineering Consultants Pvt. Limited”

Project Report

Information Technology Project 2021

Project ID: **ITP2021_S2_B01_G14**

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Date of submission

13th October 2021

Declaration

We declare that this project report or part of it was not a copy of a document done by any organization, university any other institute, or a previous student project group at SLIIT and was not copied from the Internet or other sources.

Project Details

Project Title	Consulting Company System – “RAVANA Engineering Consultants Pvt. Limited”
Project ID	ITP2021_S2_B01_G14

Group Members

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Abstract

This report documents, the project performed to develop an automated computerized system for **“RAVANA Engineering Consultants Pvt Limited”**. Earlier RAVANA Engineering Consultants Company has been using a manual system to manage their company. So, the company management needed a system to manage their resources efficiently and to procure global consultants and clients into its database. It also needed appropriate systems to locate industrial and project opportunities worldwide. The goal of this project was to develop an appropriate automated computerized system for this company. This report describes the 8 functions that are implemented in an automated system to cover the complete scope of the company. Project Proposal Management, Consultant Recruitment Management, User profile & Financial Management, Project Team Management, Project Process-based Management, Feedback & Notification Management, Workshop Management, and Pre-Designed Project Sales Management are the functions implemented in this system. React js, Node js, Express js, and Mongo Database were used as the technologies to develop this system. This system also provides the client with access control security and a user-friendly interface.

Acknowledgement

The sincere gratitude of all the team members was paid for all the lecturers who gave their continuous guidance and consultations to successfully conduct and finish this project.

Furthermore, the gratitude was expanded to the parents for helping throughout this project by being with the team during this stressful period.

Also, thank you very much to Dr. Priyantha Dileep Wijesooriya, the chairperson of “**RAVANA Engineering Consultants Pvt Limited**” and the company management for giving this opportunity.

The most important thing is not to neglect the relevant responsibilities to be considered and to thank each other on the team for maintaining each other’s morals in these stressful situations and for successfully completing this project on time.

In addition, thank you to everyone who helped directly or indirectly by providing the inspiration and determination that the team needed to make this project a success.

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List of Acronyms and Abbreviations

*HC – Head Consultant
JC – Junior Consultant*

Introduction

1.1 Problem Statement

“Ravana Engineering Consulting Pvt. Ltd.” is a consulting firm founded in 2010 by Dr. Priyantha Dileep Wijesooriya. It covers a wide range of functions in the energy and sustainable development sector, covering both conventional and renewable energy systems as well as energy management, environmental assessment, carbon processing, tender planning, and technical report development for local and foreign clients. Company management needs a system to manage its resources efficiently and to get global clients into its database.

Without a proper computerized system, clients will not be able to review past projects as they see fit. When the client comes to the office, they cannot spend much time reviewing past projects. But through a computerized system, the client can carefully monitor every little thing. The client can make an appointment with the Head Consultant without wasting time and the Head Consultant can easily view the appointments and accept or ignore those appointments. It is very difficult to carry out this process in this Covid epidemic without a computerized system. People who want to join the work team can easily apply through this computerized system and it is very useful in this epidemic situation. The client can purchase a pre-planned project through this system as well.

The computerized system is very useful in this situation. Not only for this epidemic, but this system also makes people's lives easier. Without a web application, the client did not have a proper way to check the progress of their projects and cash flow. That was the biggest problem this company faced. But through this web application, the client can easily do the above and it also saves the client's time. Those are the problems that this company faced without a web application, and all those problems will solve through this web application.

1.2 Product Scope

The group builds up a web-based application for “Ravana Engineering Consulting Pvt. Ltd.” to display the previous projects, make new client appointments, review the project progress and project cash-flow from anywhere, can join for webinars who like to know about project consultancy, join to the working team, and buy pre-designed project easily. This framework, for the most part, covers the accompanying capacities through online applications:

- ✓ User Profile & Financial Management

- ✓ Project Process-based Management
- ✓ Workshop Management
- ✓ Project Proposal Management
- ✓ Consultant Recruitment Management
- ✓ Project Team Management
- ✓ Pre-Designed Project Sales Management
- ✓ Feedback & Notification Management

Client's need to review past projects and make appointments with the Head Consultant through the online web application. It will be prepared and sent to the client for verification so that the Chief Consultant provides a specific time frame for the discussion to take place, either physically or through a platform. After the discussion, if the project has not been rejected by the Head Consultant, the client's information should be forwarded by the Head Consultant to the Administrator. Then, the administrator must create a profile for the specific client by registering the client in the system and send the registration number and password to the client. Additionally, the client can check the progress of the project and the cash-flow statements made by the company through the web application.

Since the company needs to recruit new consultants, interested parties can apply for a job through an application. The Head Consultant is concerned about accepting or rejecting the applicant. If the applicant is not rejected, he/she will be recruited by the company as a junior consultant. Further, the Head Consultant must submit the Junior Consultant's information to the Administrator. It is then the administrator's responsibility for the junior consultant to register him/her in the system, create a profile, and send its registration number and password to the junior consultant.

The platform is designed so that the Head Consultant can use the system to perform their duties and responsibilities efficiently and effectively. Responsibilities include managing the financial sector of the company and assigning junior consultants to various projects classified as team field officers and office workers according to the project timeframe assigned to them. Also, the Head Consultant will be able to monitor the progress of the project through the system.

The system consists of options that the junior consultant can primarily design project-based activity activities for, and the project progress report should be visible to the head consultant and relevant clients through the system by the junior consultant team leaders. Upon completion of a project, the

Junior Consultant submits the project report to the Head Consultant, who then delegates the rest of the process of negotiating with the Client to the Head Consultant.

The administrator is required to manage user profiles, demonstrate workshop schedules and sales management of pre-planned projects, provide feedback to all contributors to the web application, provide feedback, and finally submit a report. Head Consultant for the company's future improvements.

The above requirements cannot be complete without a proper web application. The company faced the above problems due to the lack of a computerized system.

1.3 Project Report Structure

In the first part of the report will describe about the requirement analysis phase of the project. This section contains use case diagrams to represent the client's requirements of each component of the project. And also, this part is having with activity diagrams to describe the components of the system represented by the use cases.

In the next part of the report shows the design of the whole system. This includes high-level architecture diagram and class diagrams. Also, this will explain the database design using the ER diagrams. This part will contain with snapshots of user interfaces in each section.

In the implementation section, report describes the tools and technologies, database, implementation language and other special design patterns that used to develop this web application. Also having some code of special algorithms.

Next part of the report will describe about the testing phase of the system. The testing phase contains sixteen test cases which covers the whole system by at least testing each function twice.

After the testing section, the conclusion of the project, references, and appendix will take the place.

2. Methodology

2.1 Requirements and Analysis

Project Proposal Management Use case diagram

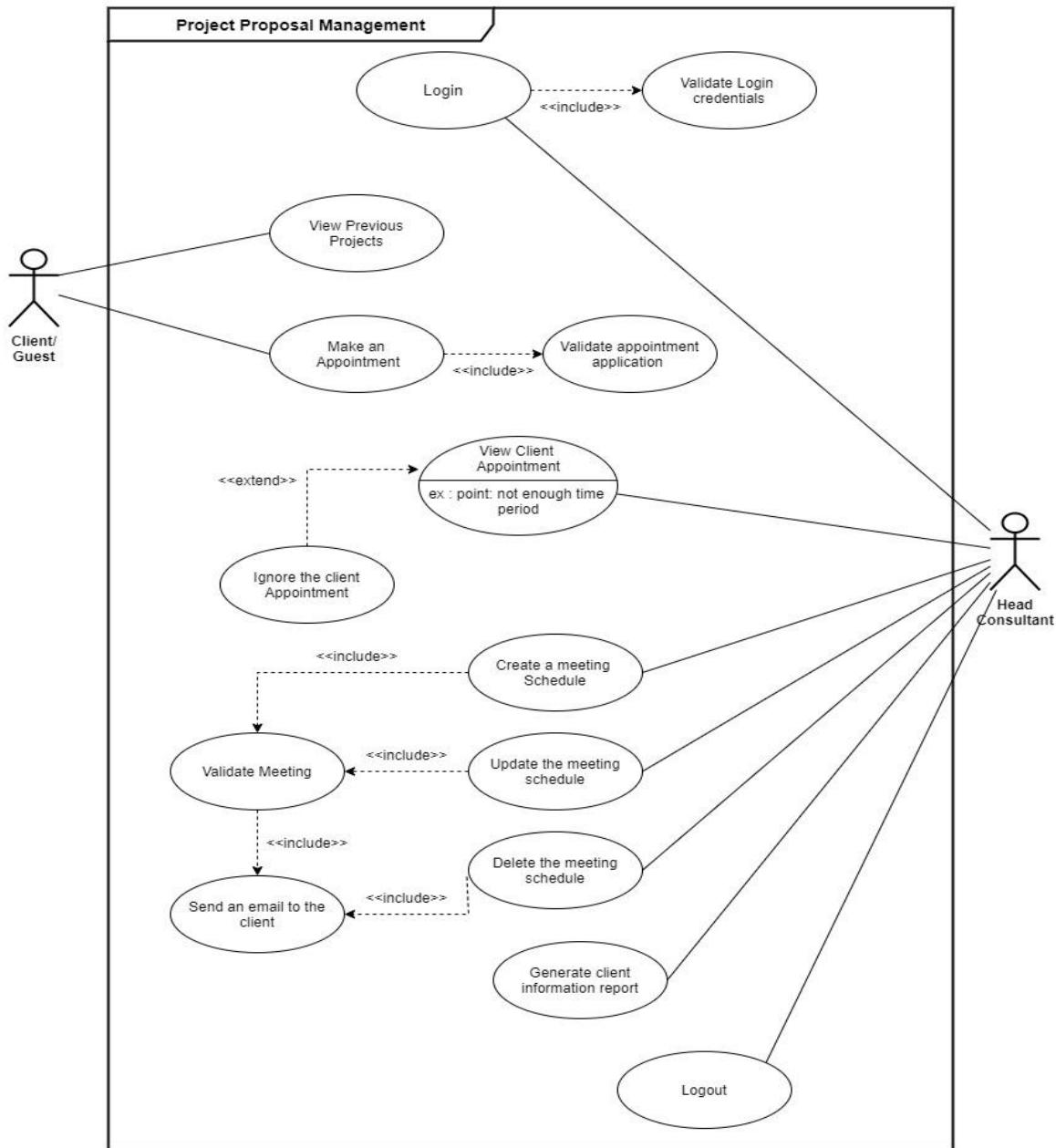


Figure 1 Use case diagram of project proposal management

Activity diagram

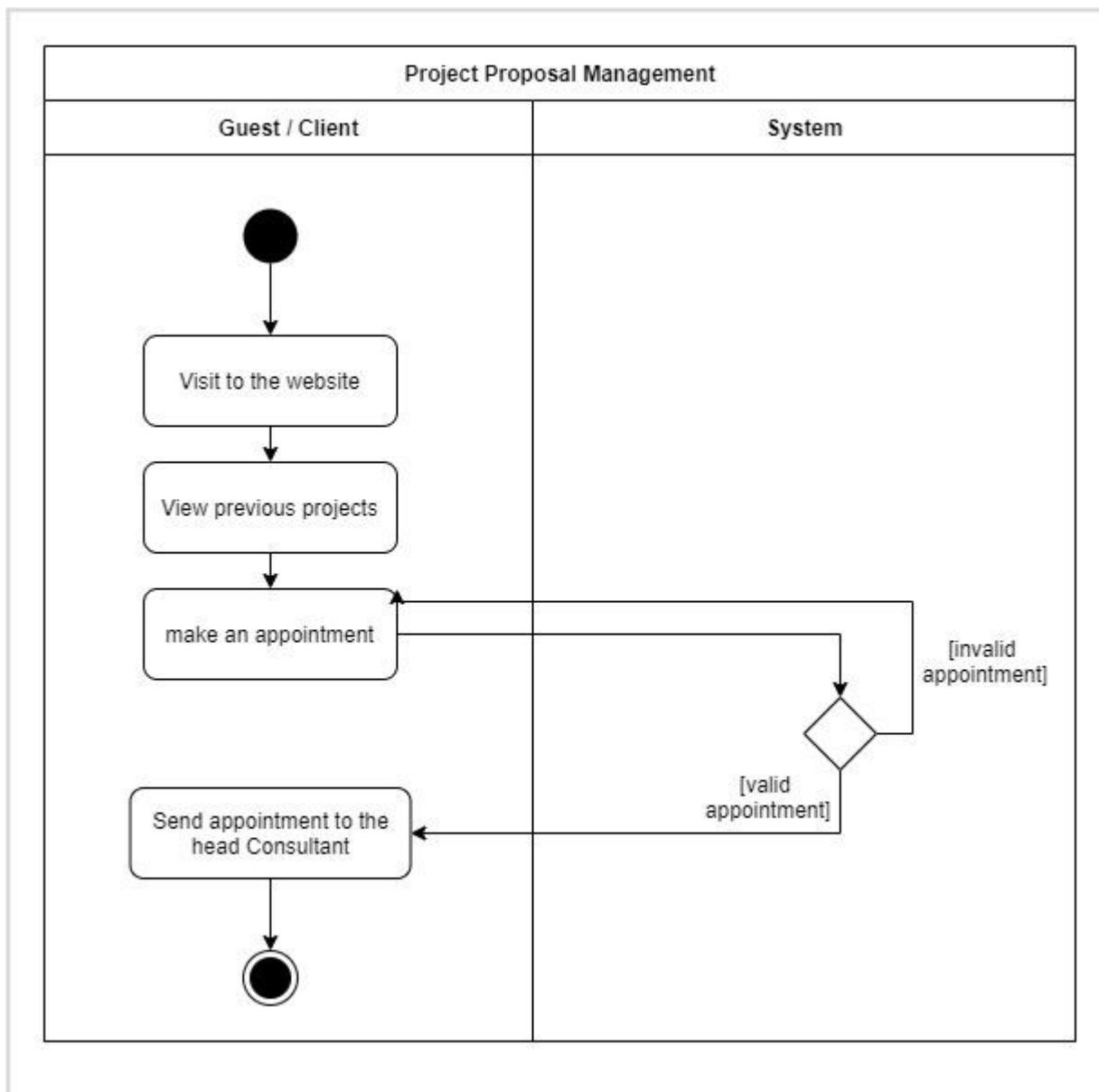


Figure 2.1 Activity diagram of project proposal management

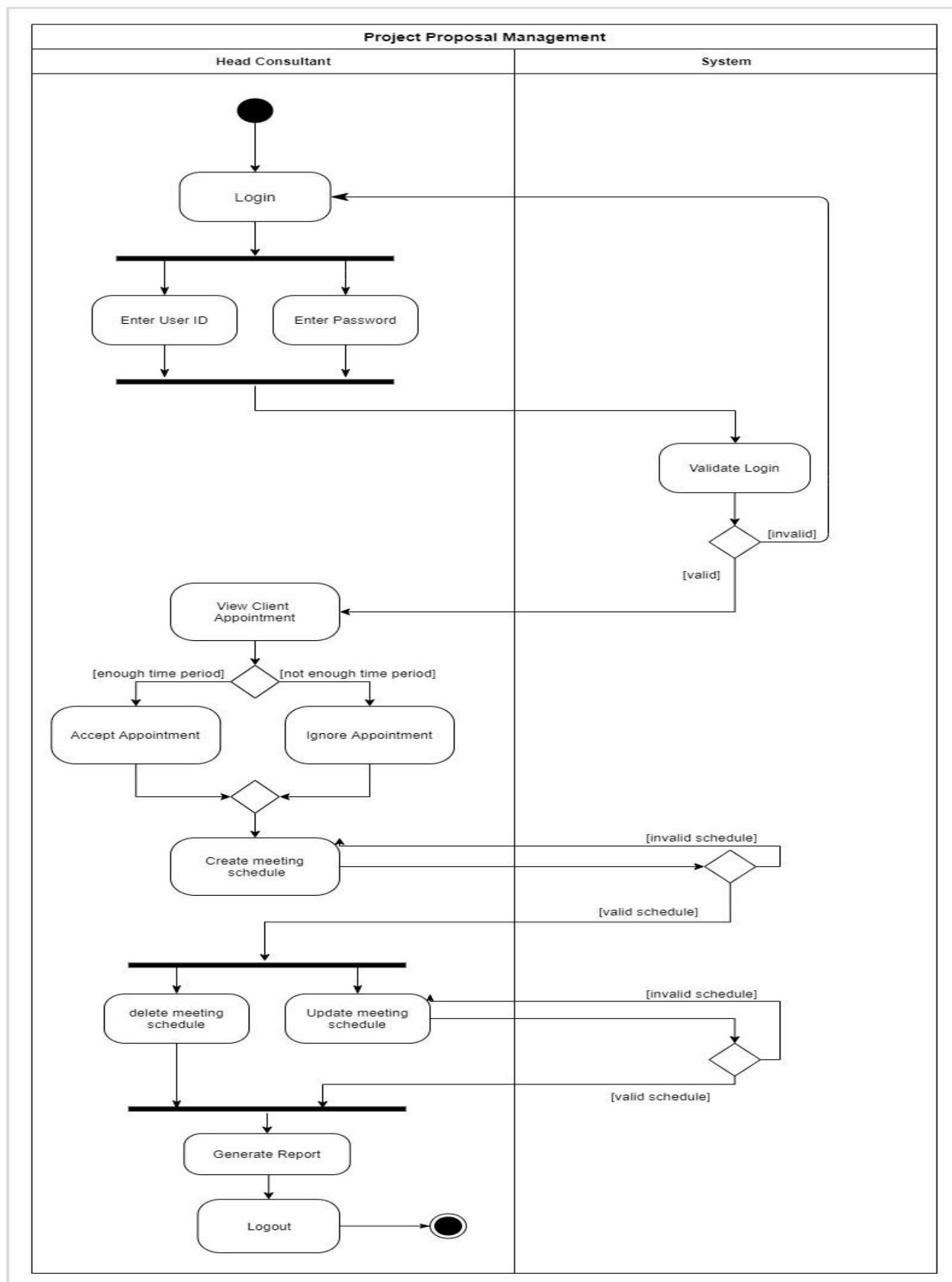


Figure 3 Activity diagram of project proposal management

Consultant Recruitment Management

Use case diagram



Figure 4 Use case diagram of Consultant Recruitment management

Activity Diagram

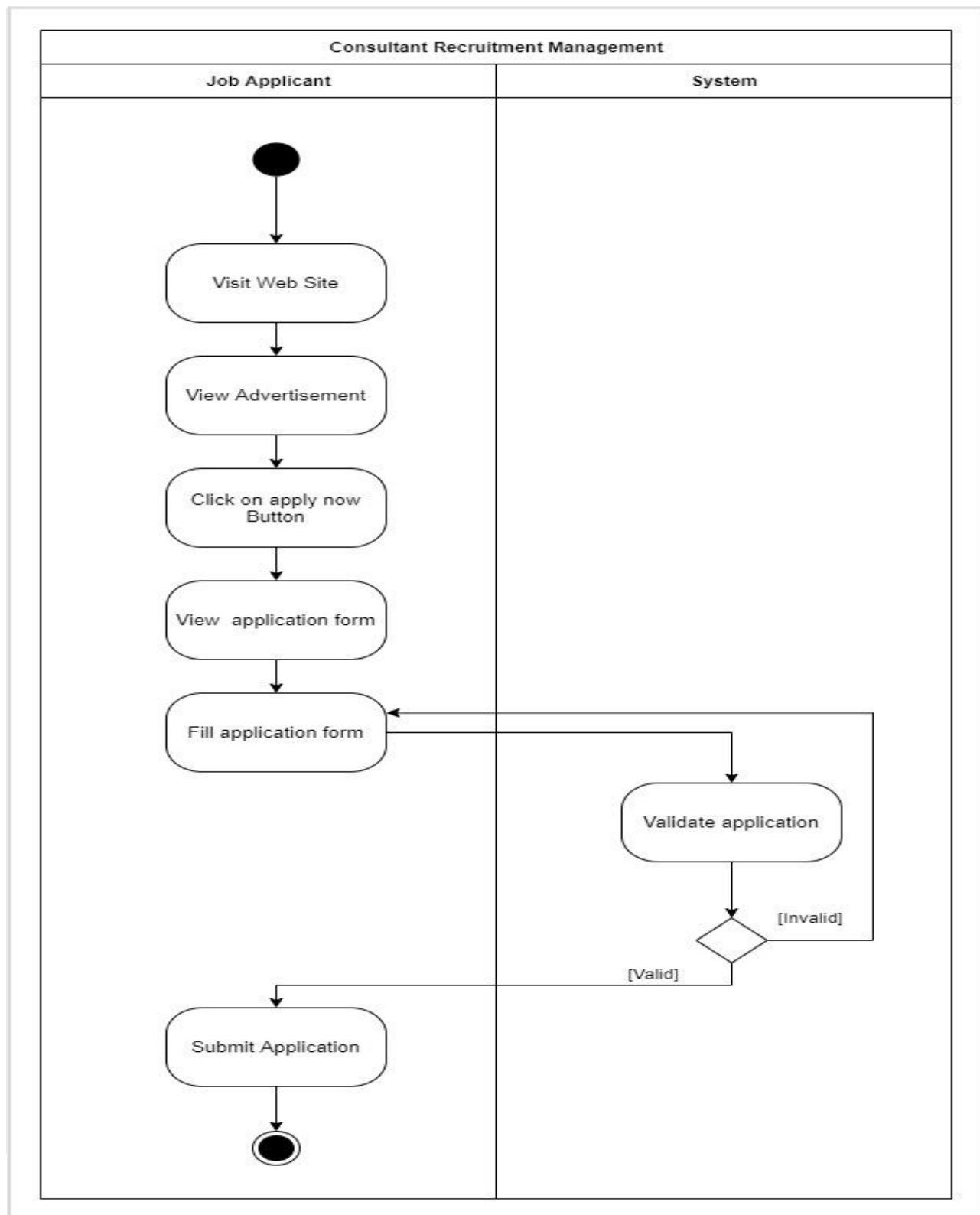


Figure 5 Activity diagram of Consultant Recruitment management

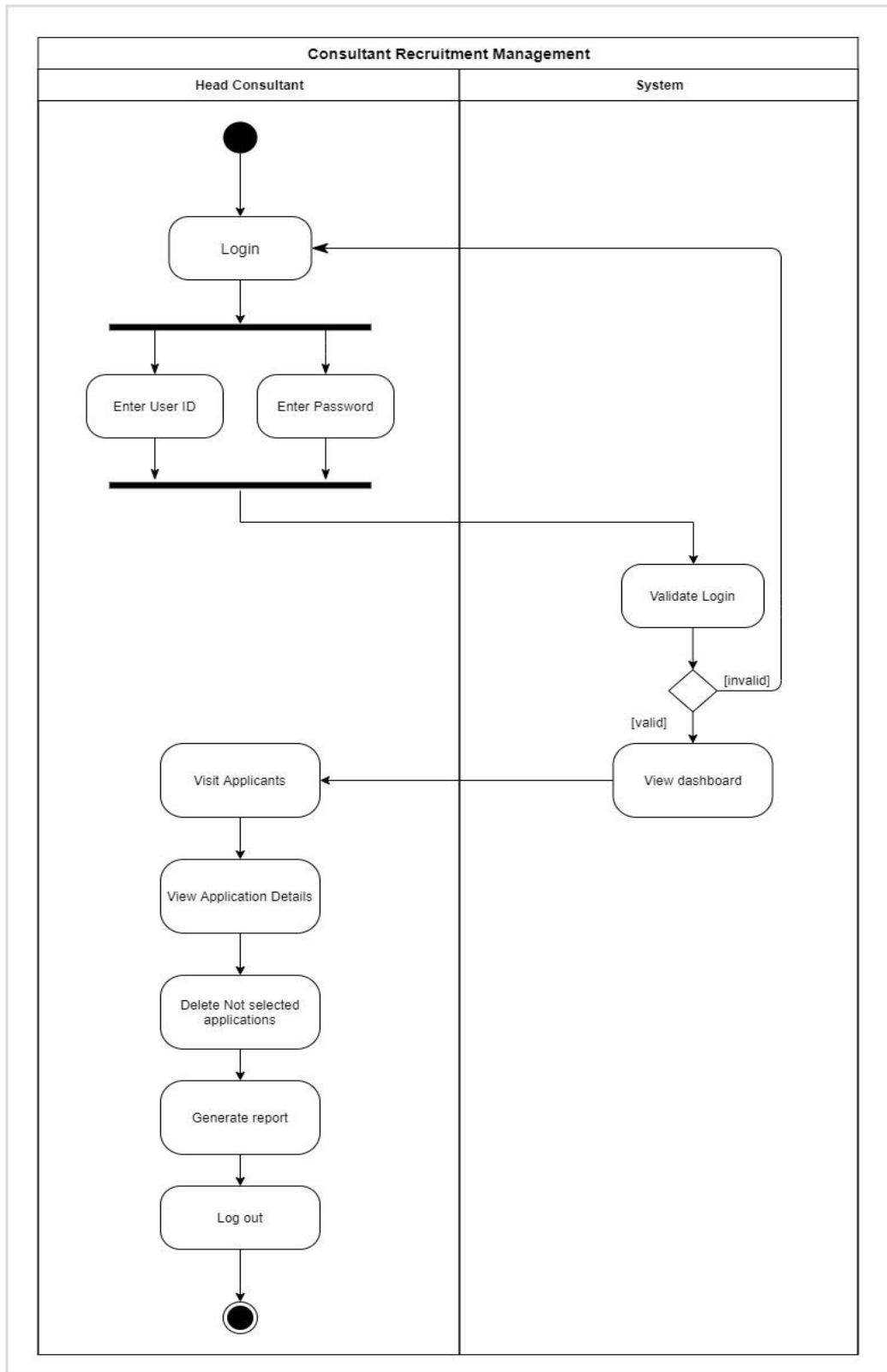


Figure 6 Activity diagram of Consultant Recruitment management

User Profile Management

Use case diagram

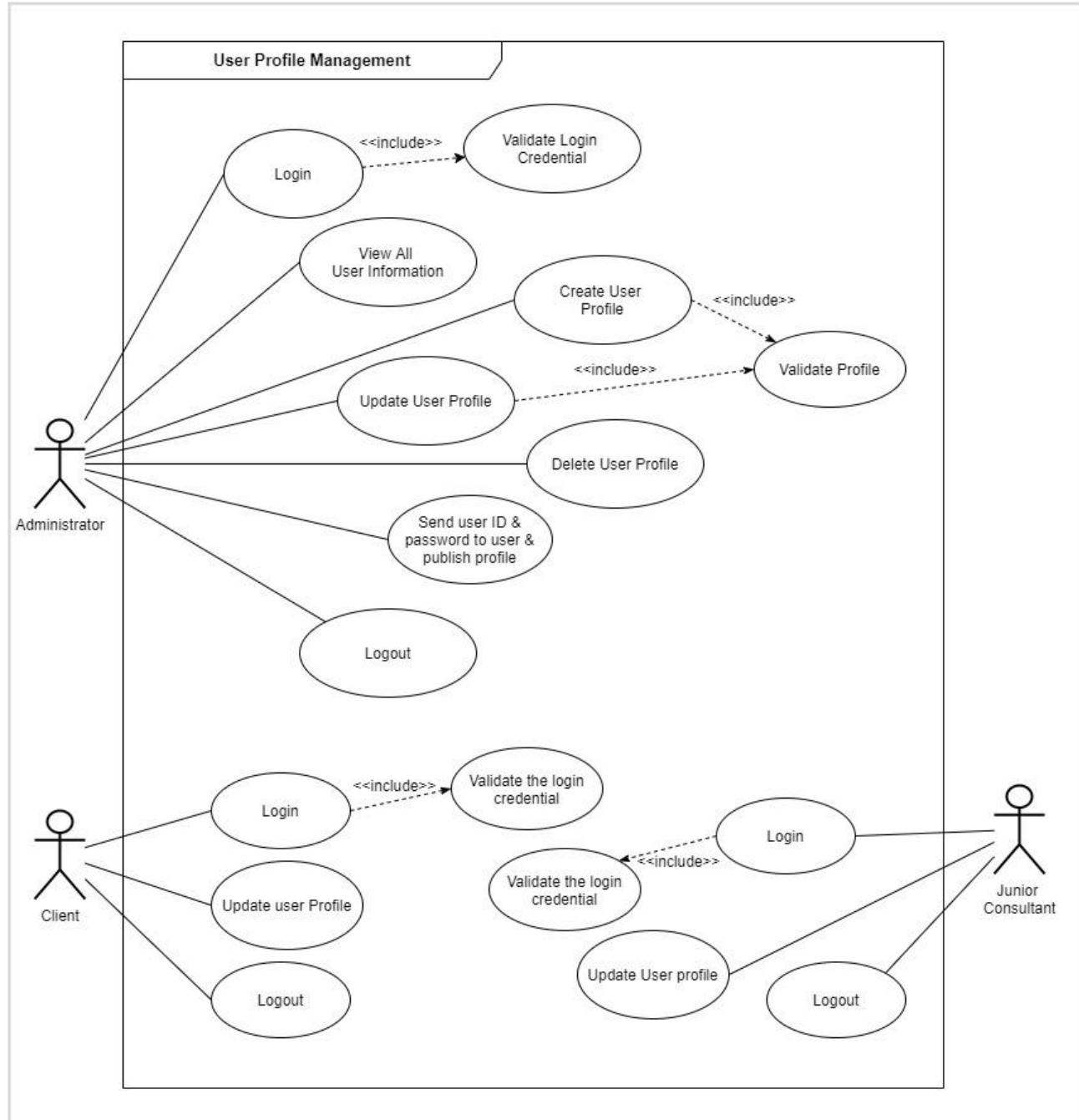


Figure 7 Use case diagram of User profile management

Activity Diagram

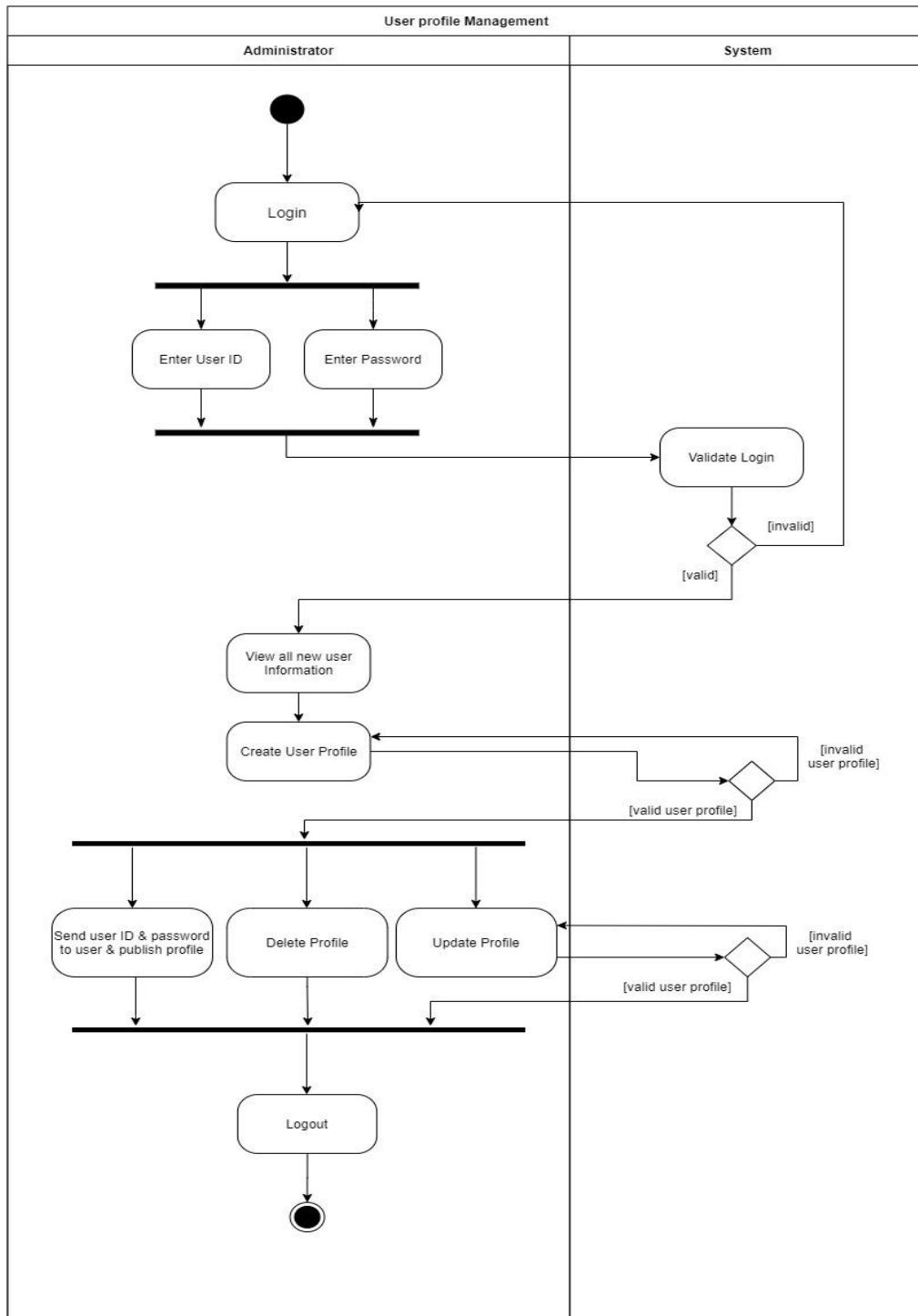


Figure 8 Activity diagram of User profile management

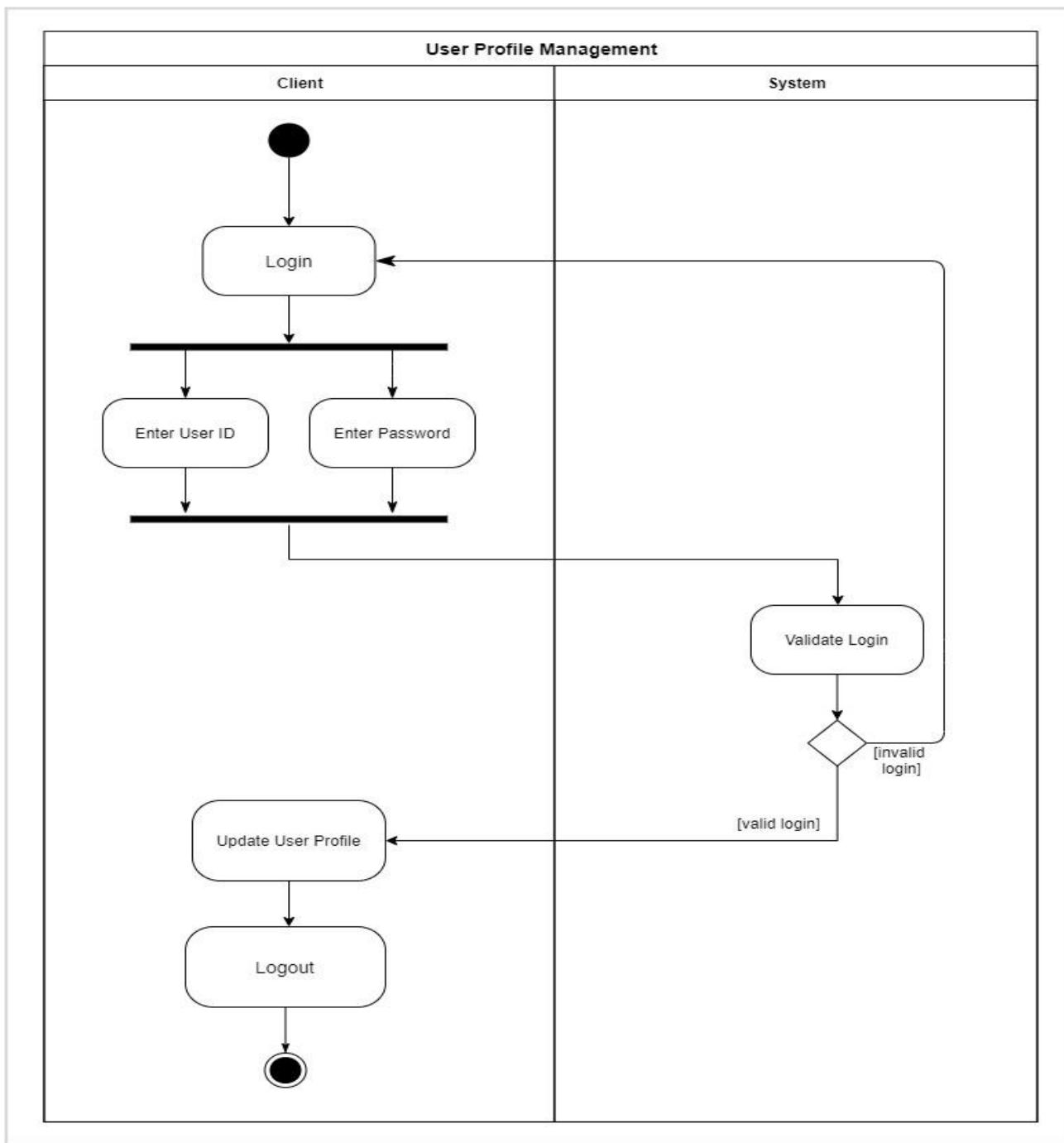


Figure 9 Activity diagram of User profile management

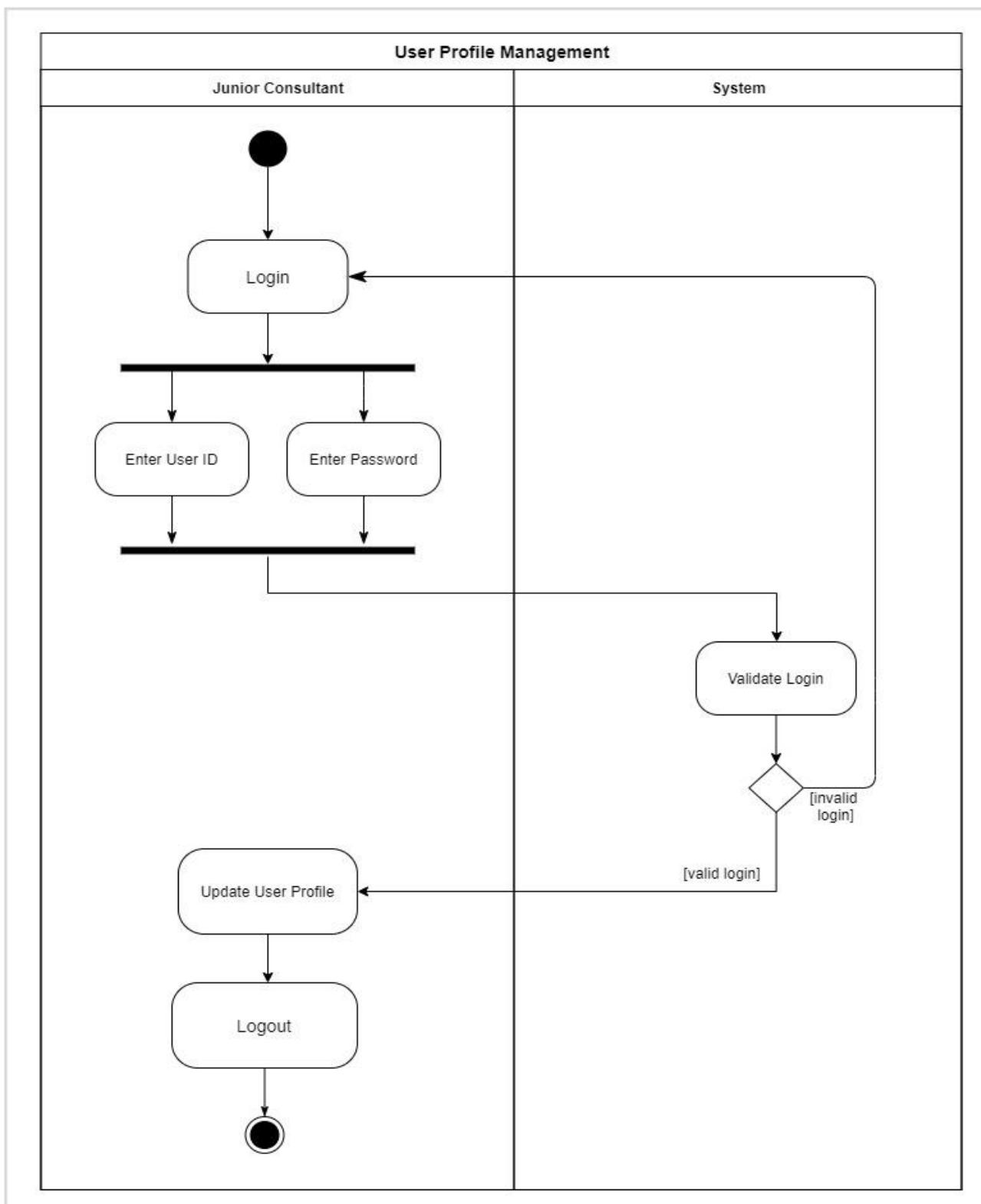


Figure 10 Activity diagram of User profile management

Project Financial Management

Use case diagram

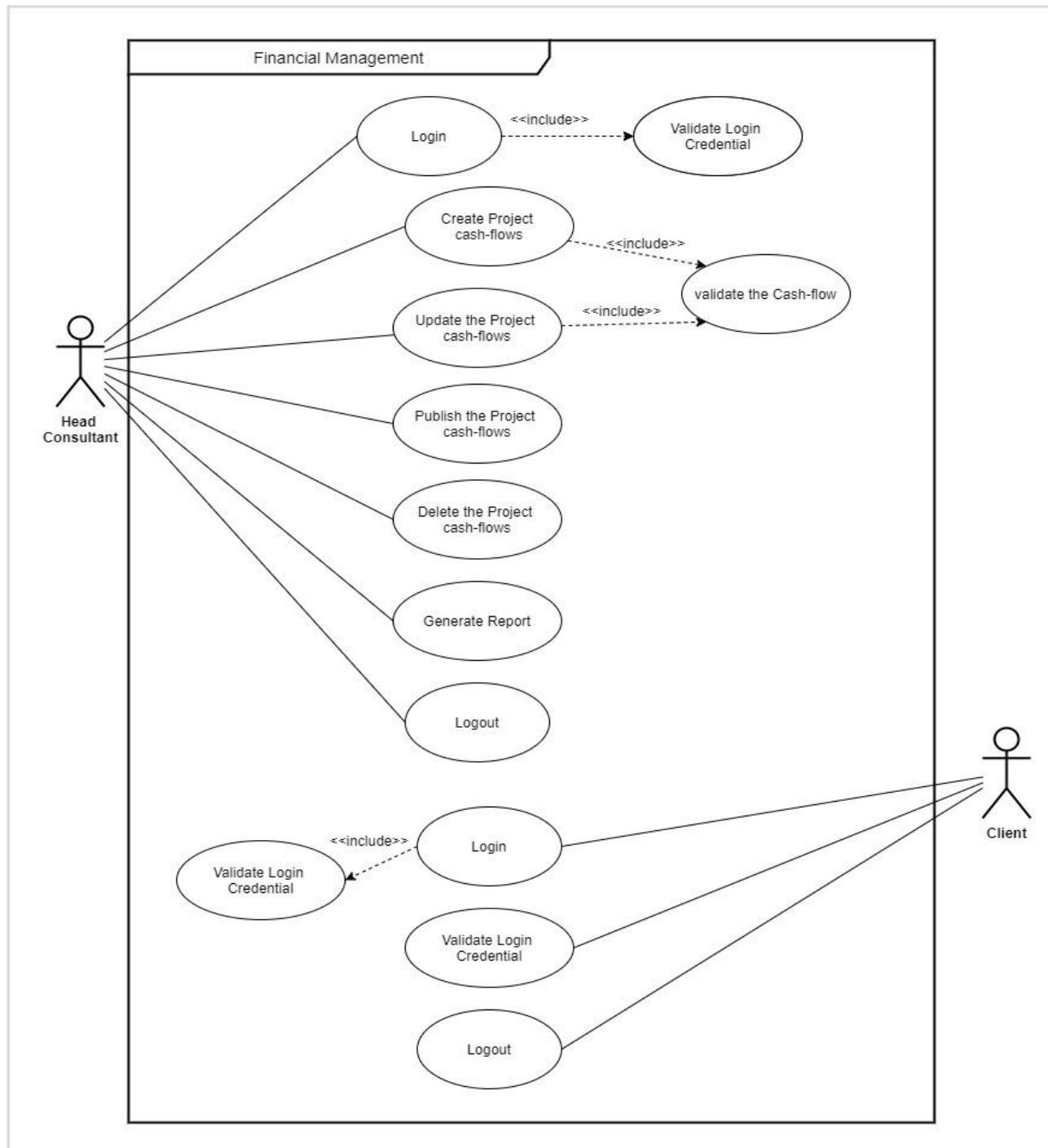


Figure 11 Use case diagram of financial management

Activity Diagram

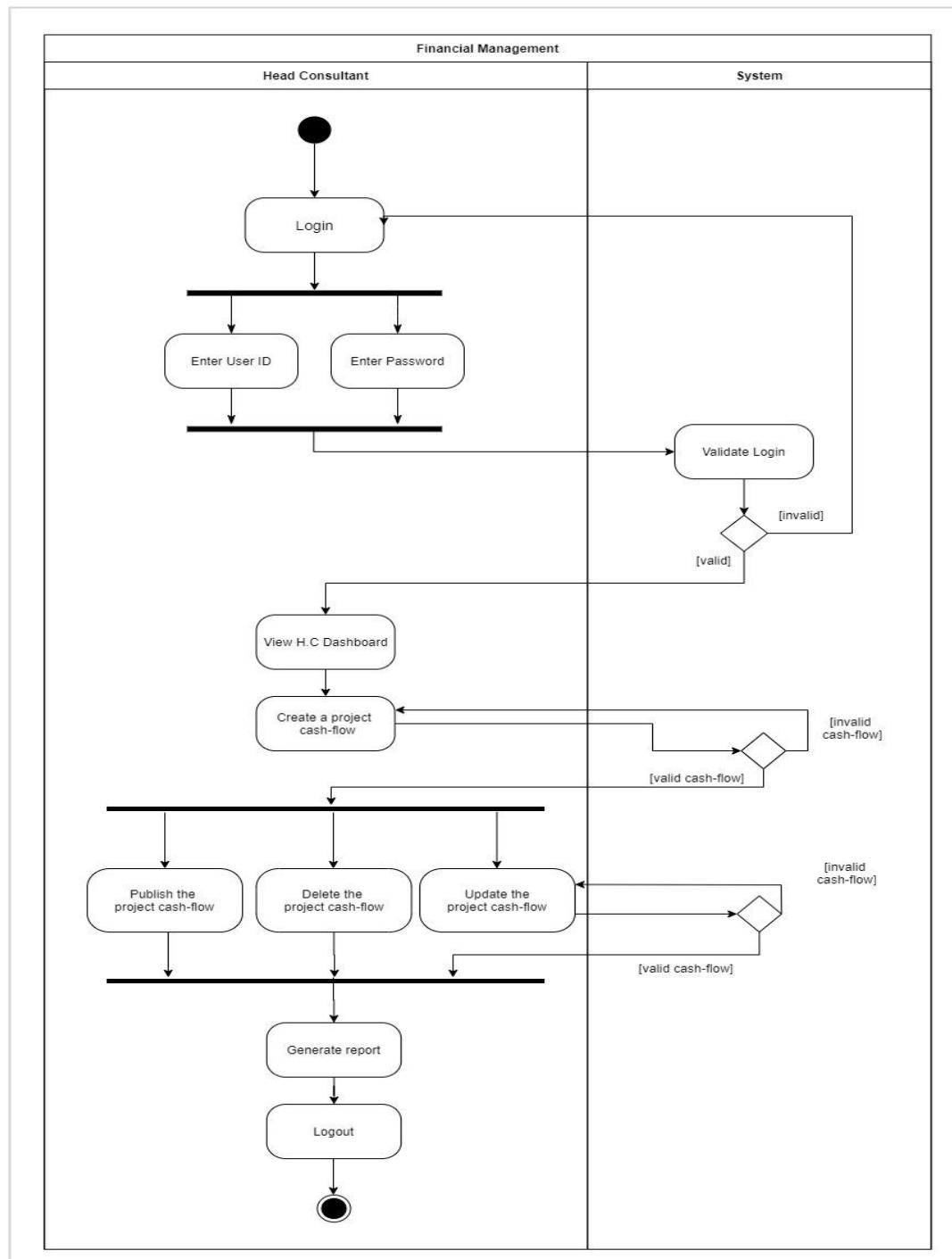


Figure 12 Activity diagram of financial management

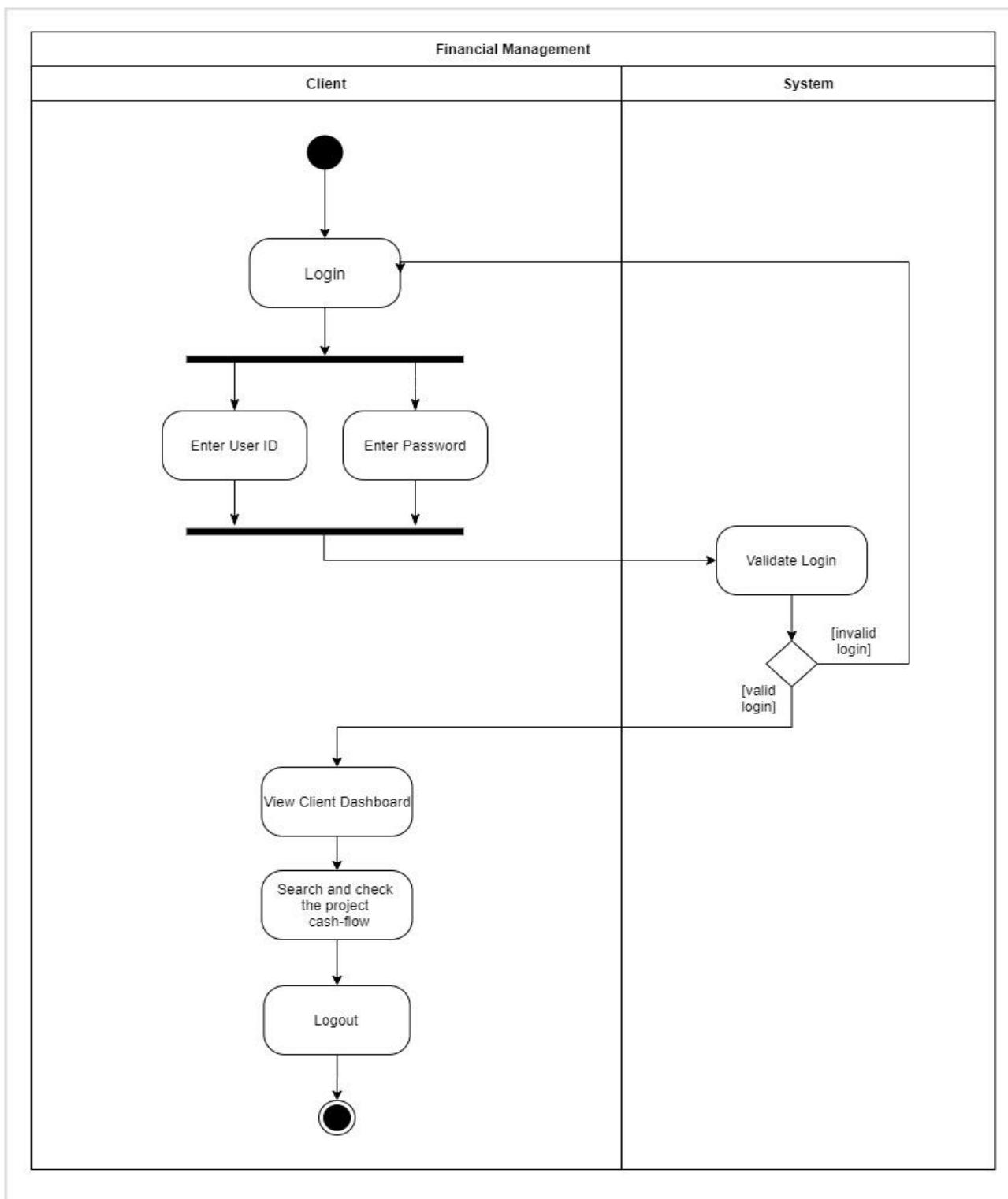


Figure 13Activity diagram of financial management

Project Team Management

Use case diagram

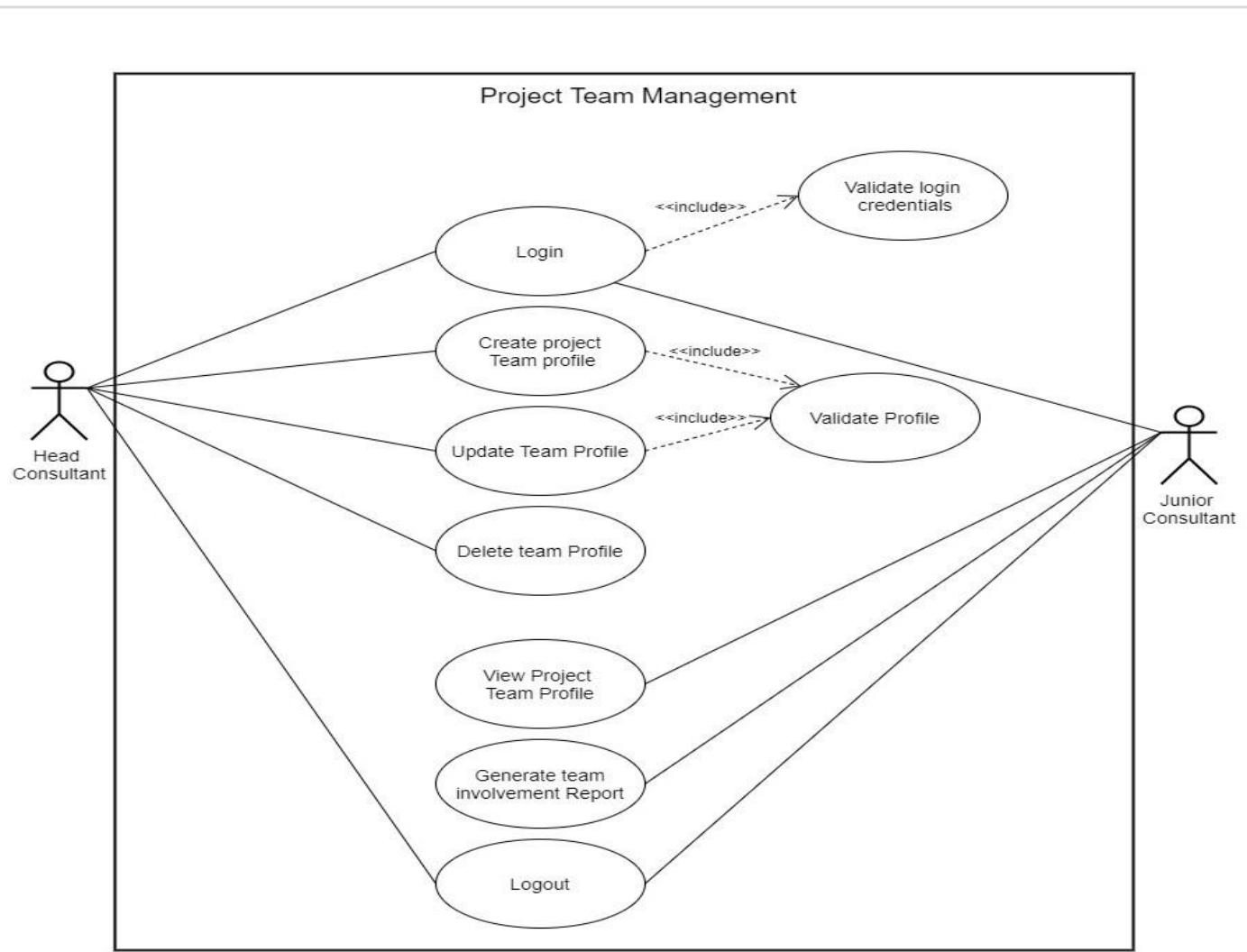


Figure 14 Use case diagram of project team management

Activity diagram

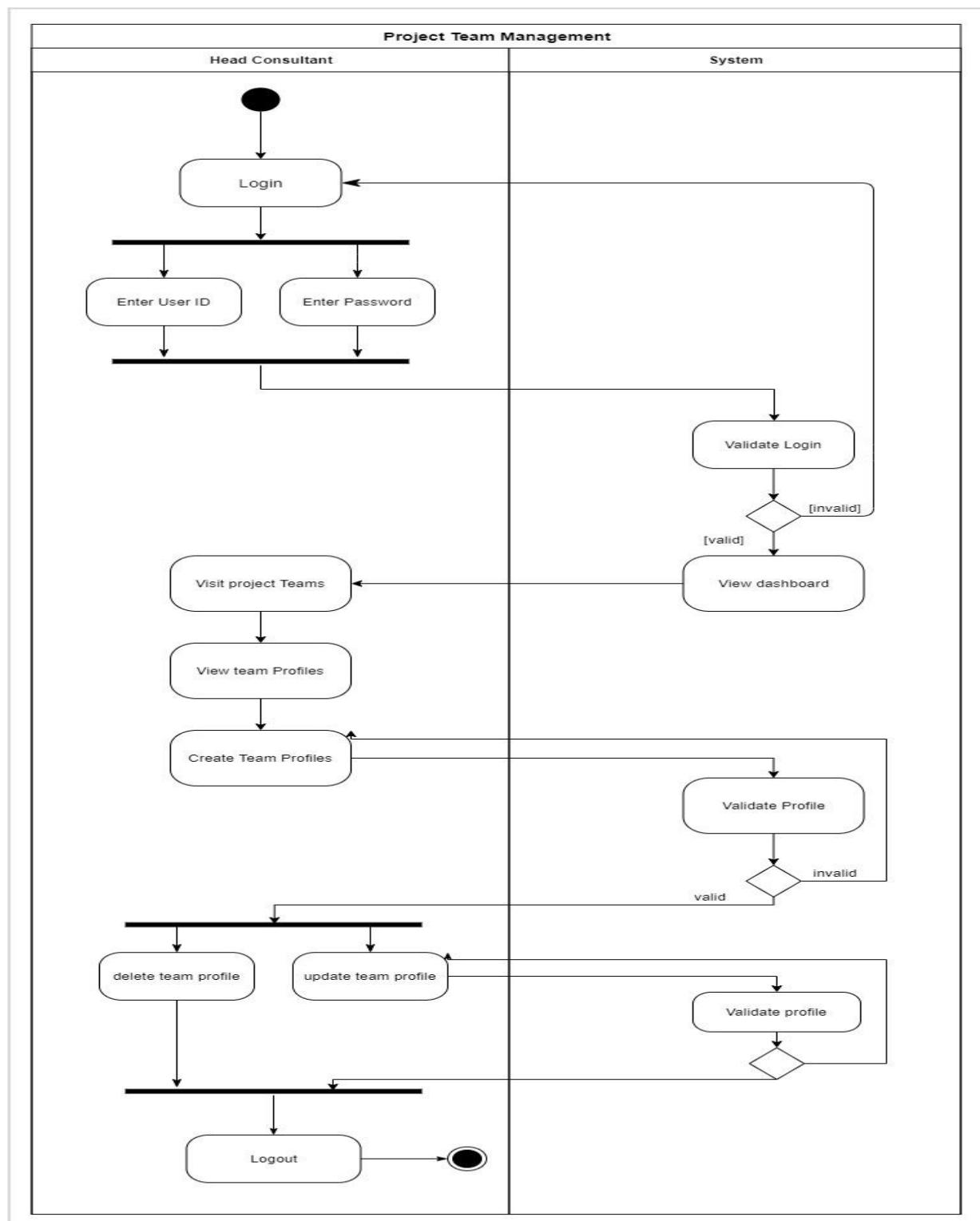


Figure 15 Activity diagram of project team management

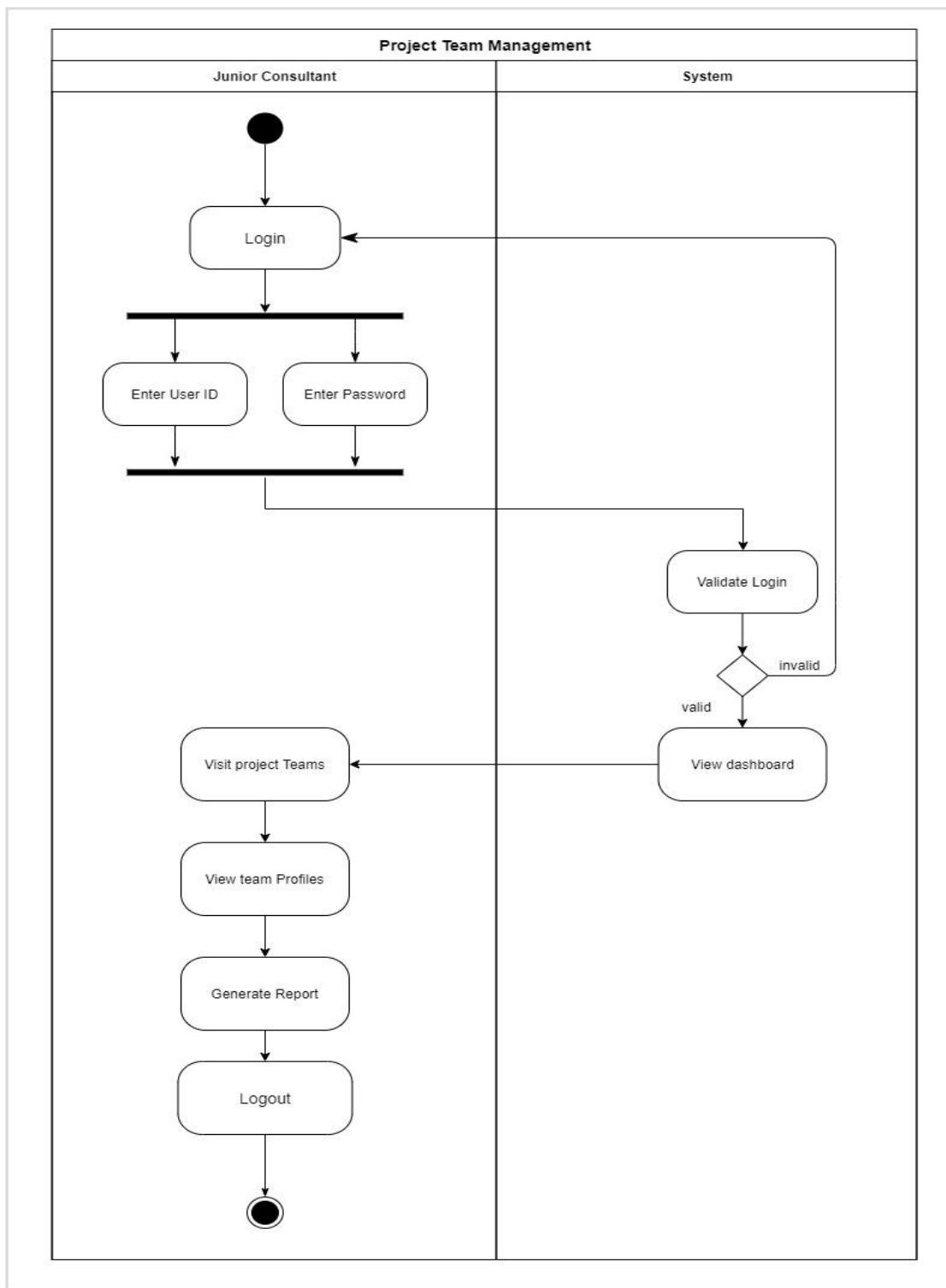


Figure 16 Activity diagram of project team management

Project Process Based Management

Use case Diagram

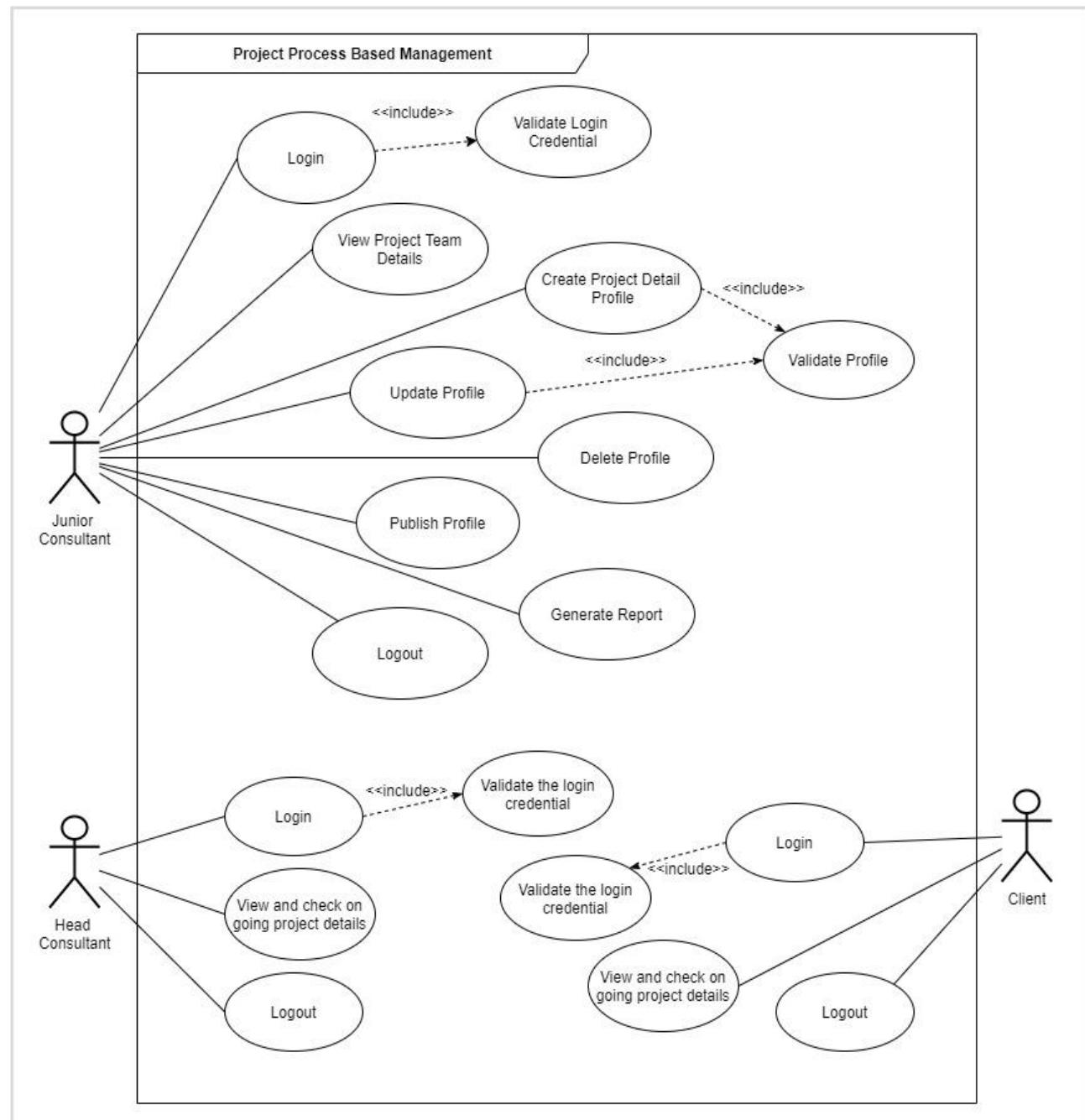


Figure 17 Use case diagram of project process based management

Activity Diagram

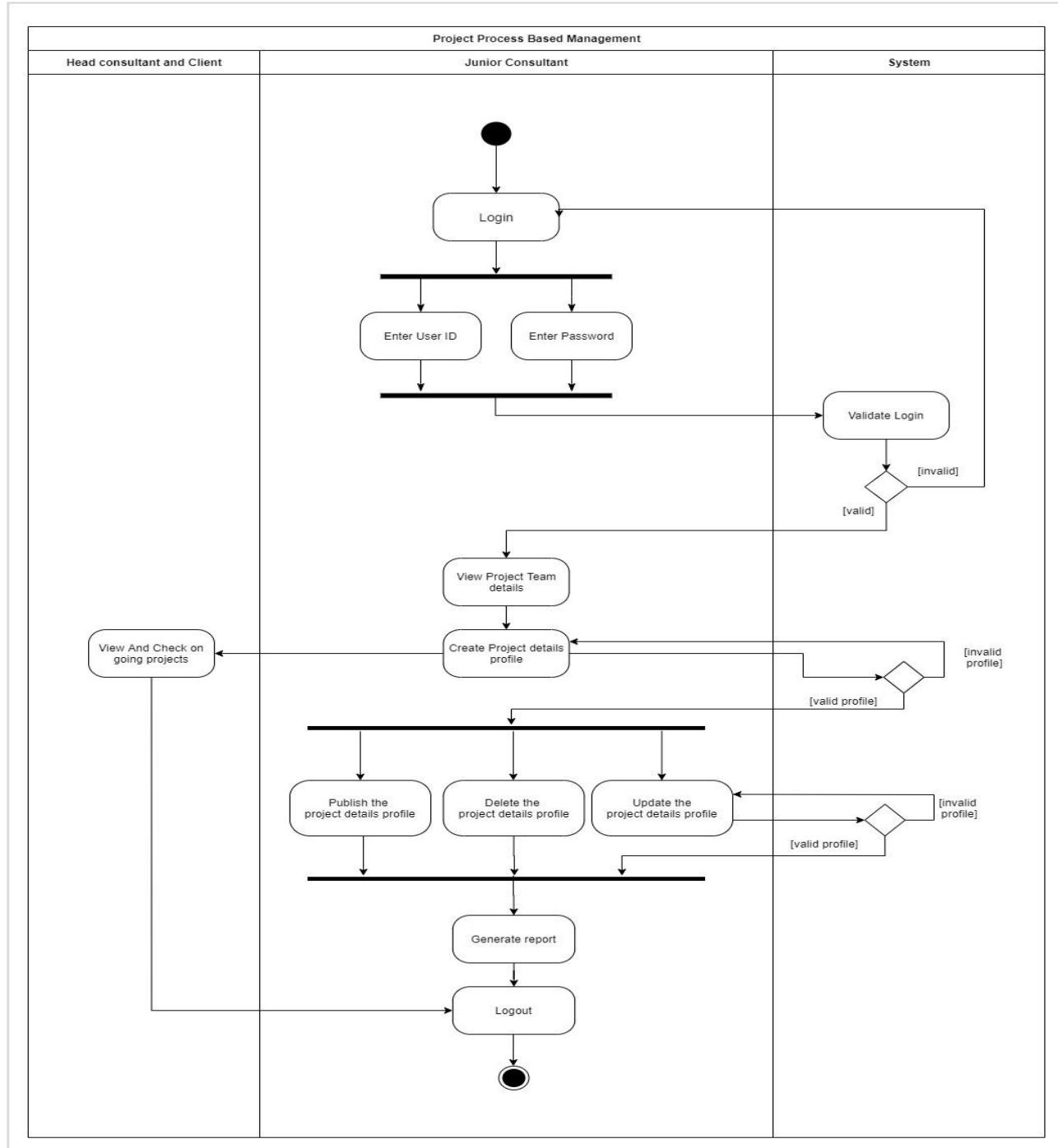


Figure 18 Activity diagram of project process based management

Feedback & Notification Management

Use case diagram

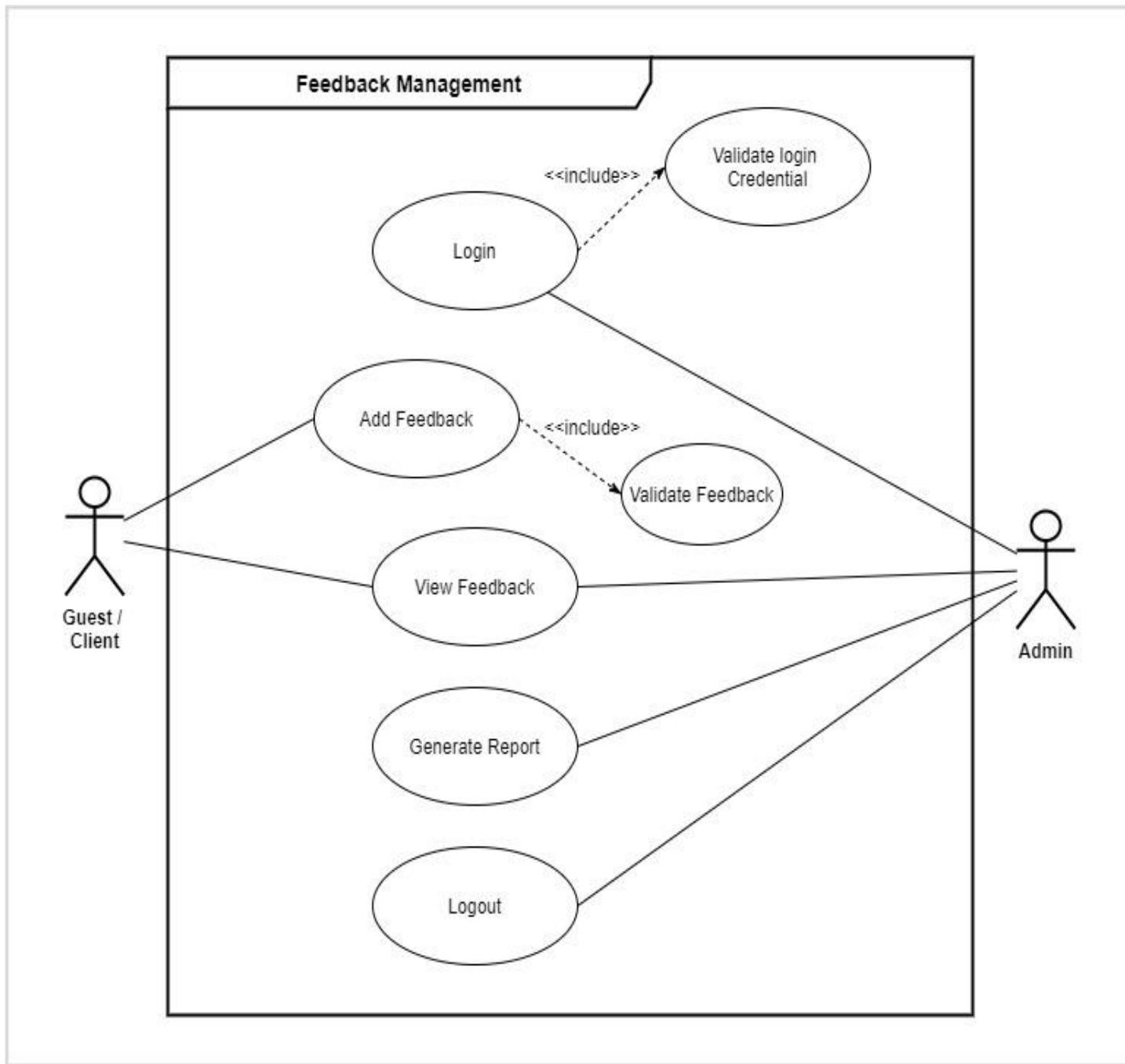


Figure 19 Use case diagram of feedback and notification management

Activity Diagram

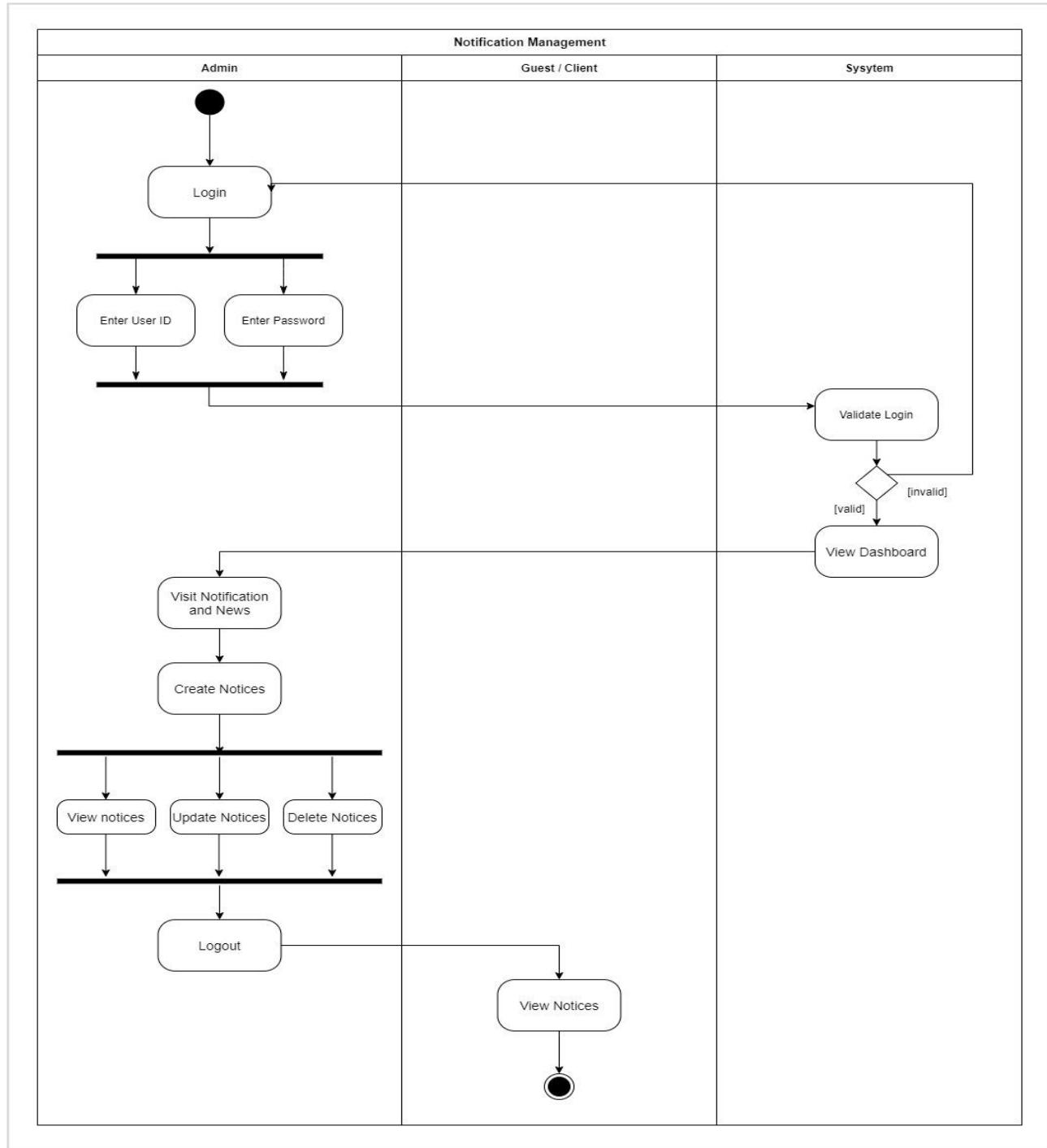


Figure 20 Activity diagram of feedback and notification management

Use case diagram

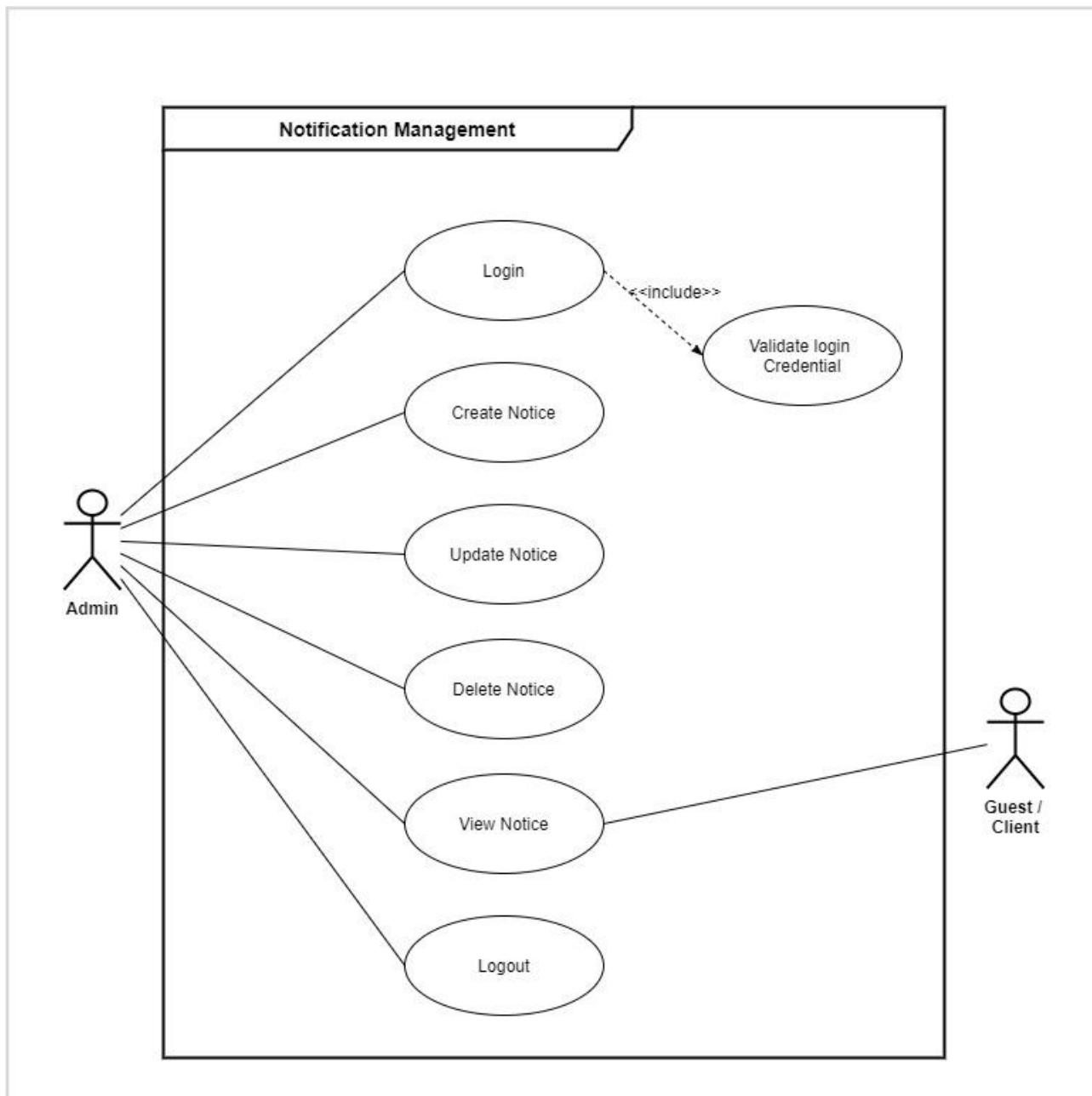


Figure 21 Use case of feedback and notification management

Activity diagram

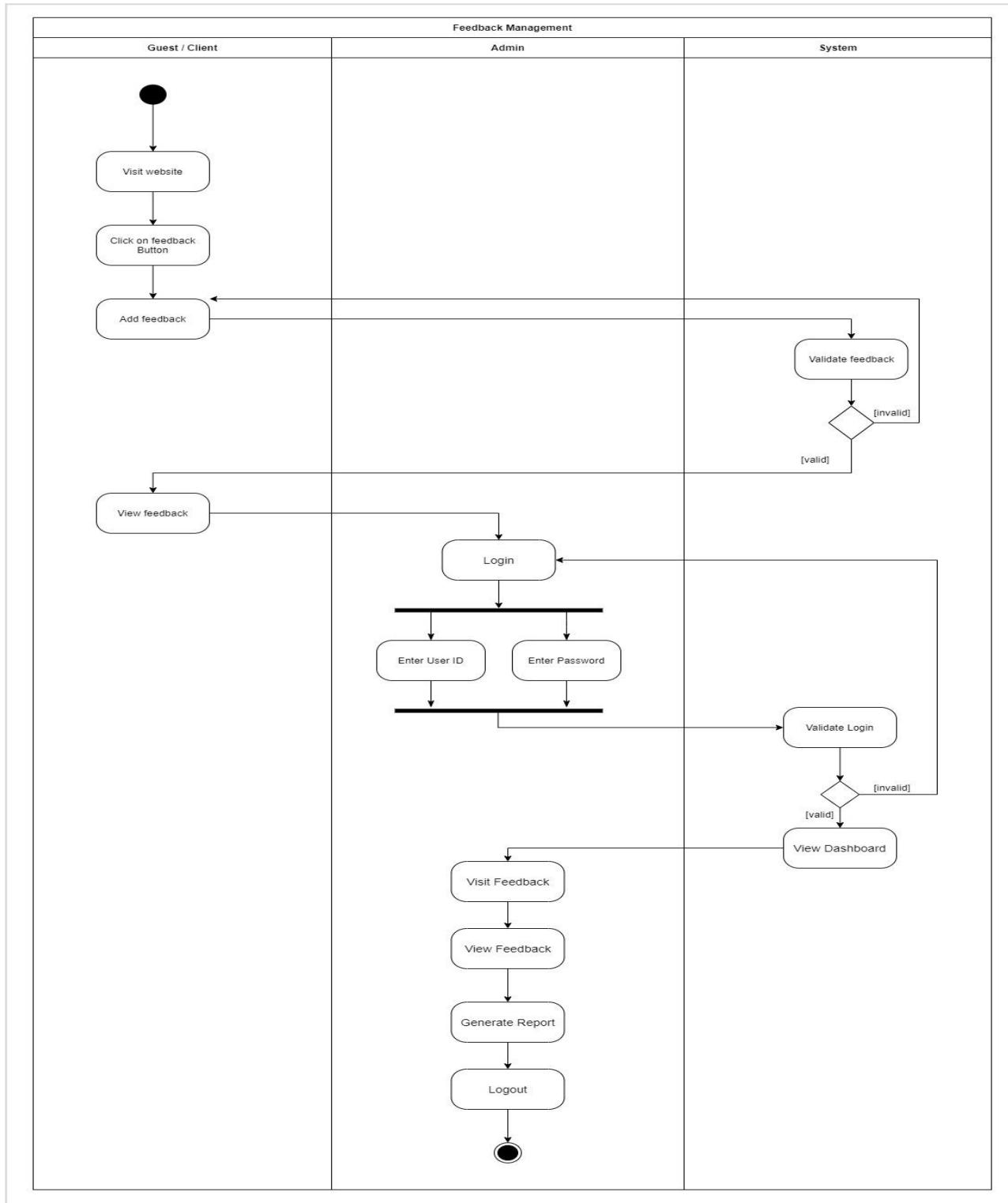


Figure 22 Activity diagram of feedback and notification management

Workshop management

Use case diagram

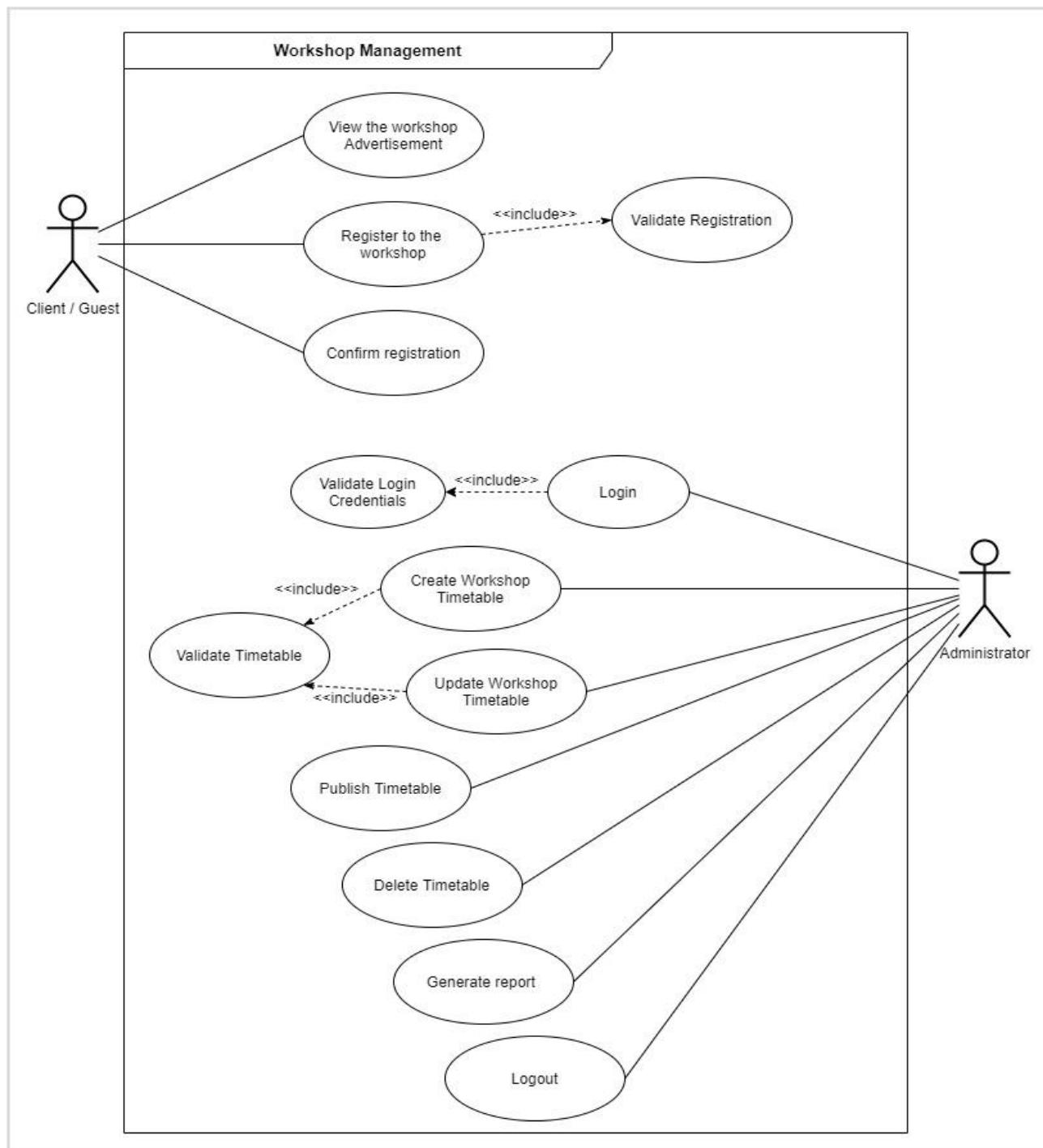


Figure 23 Use case of workshop management

Activity diagram

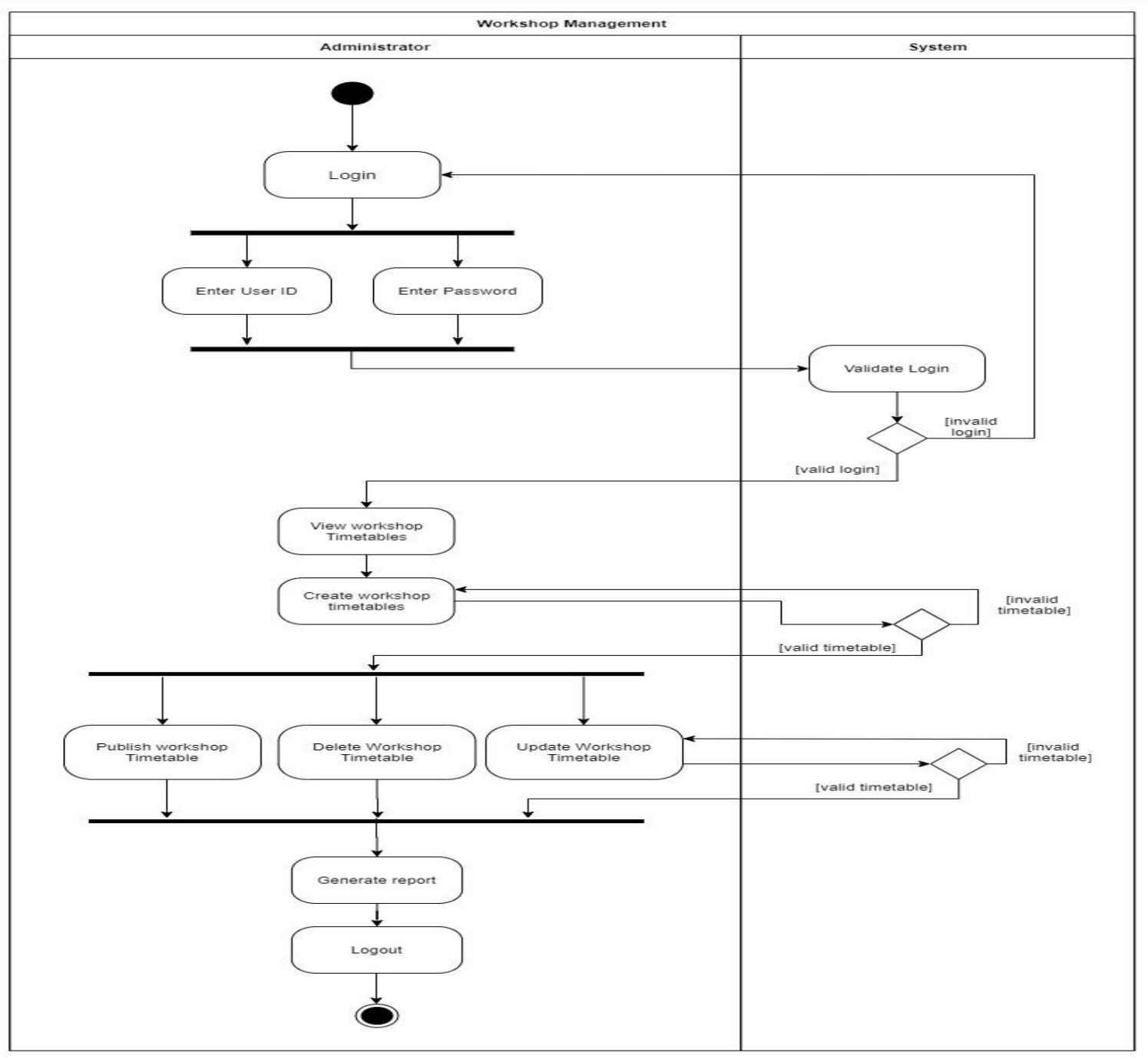


Figure 24 Use case of workshop management

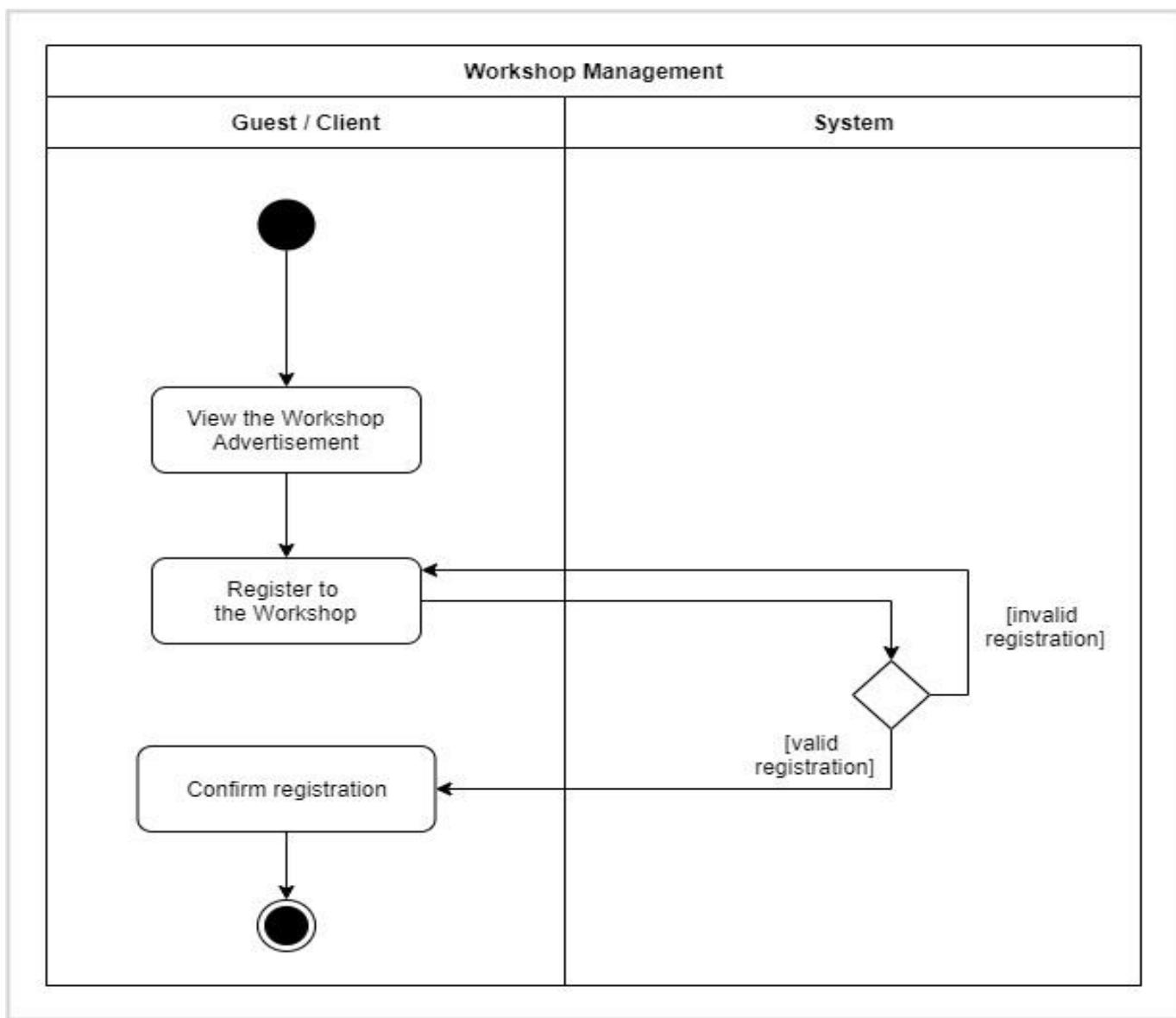


Figure 25 Use case of workshop management

Pre designed project sales management

Use case diagram

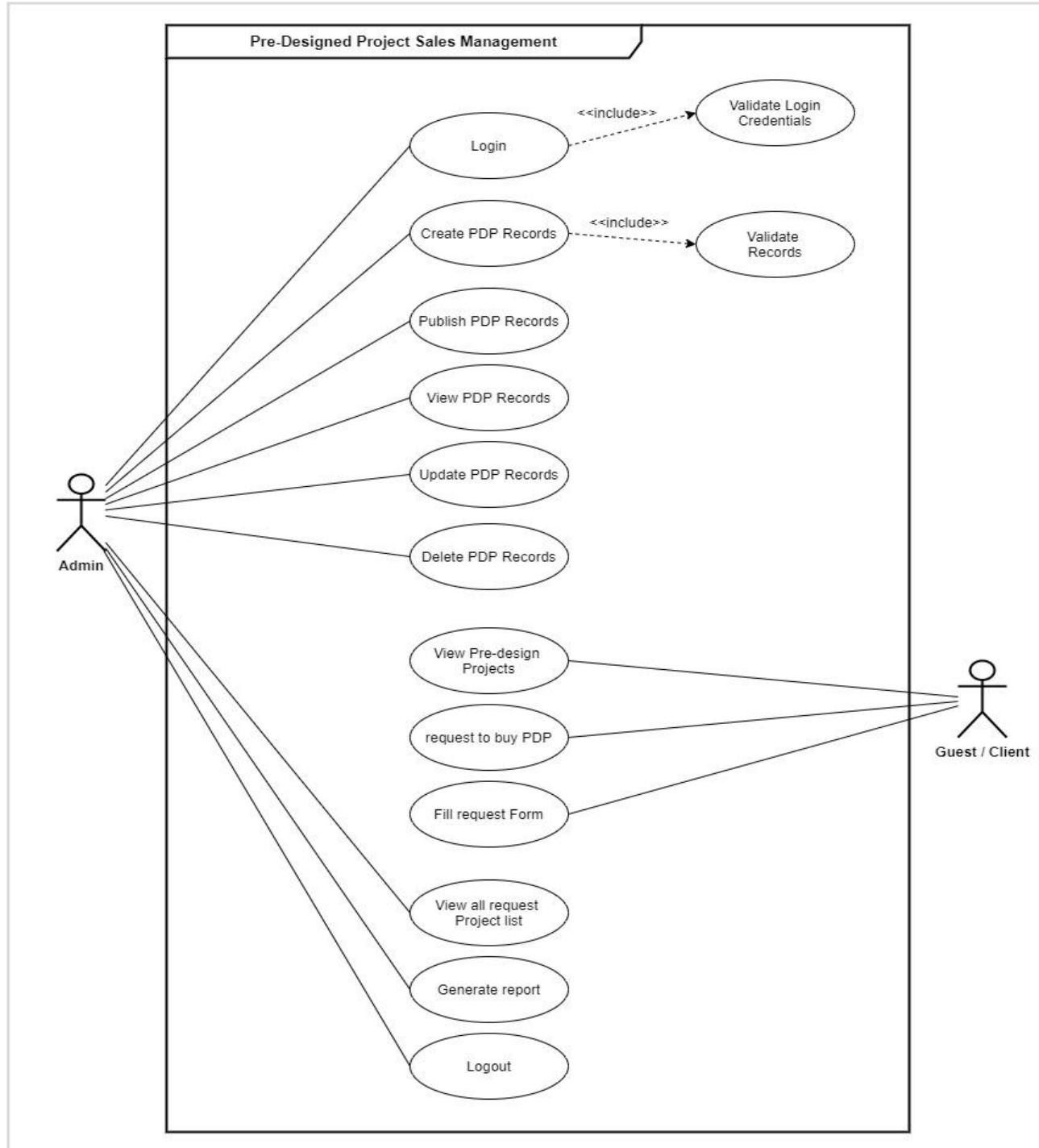


Figure 26 Use case of pre designed project sales management

Activity diagram

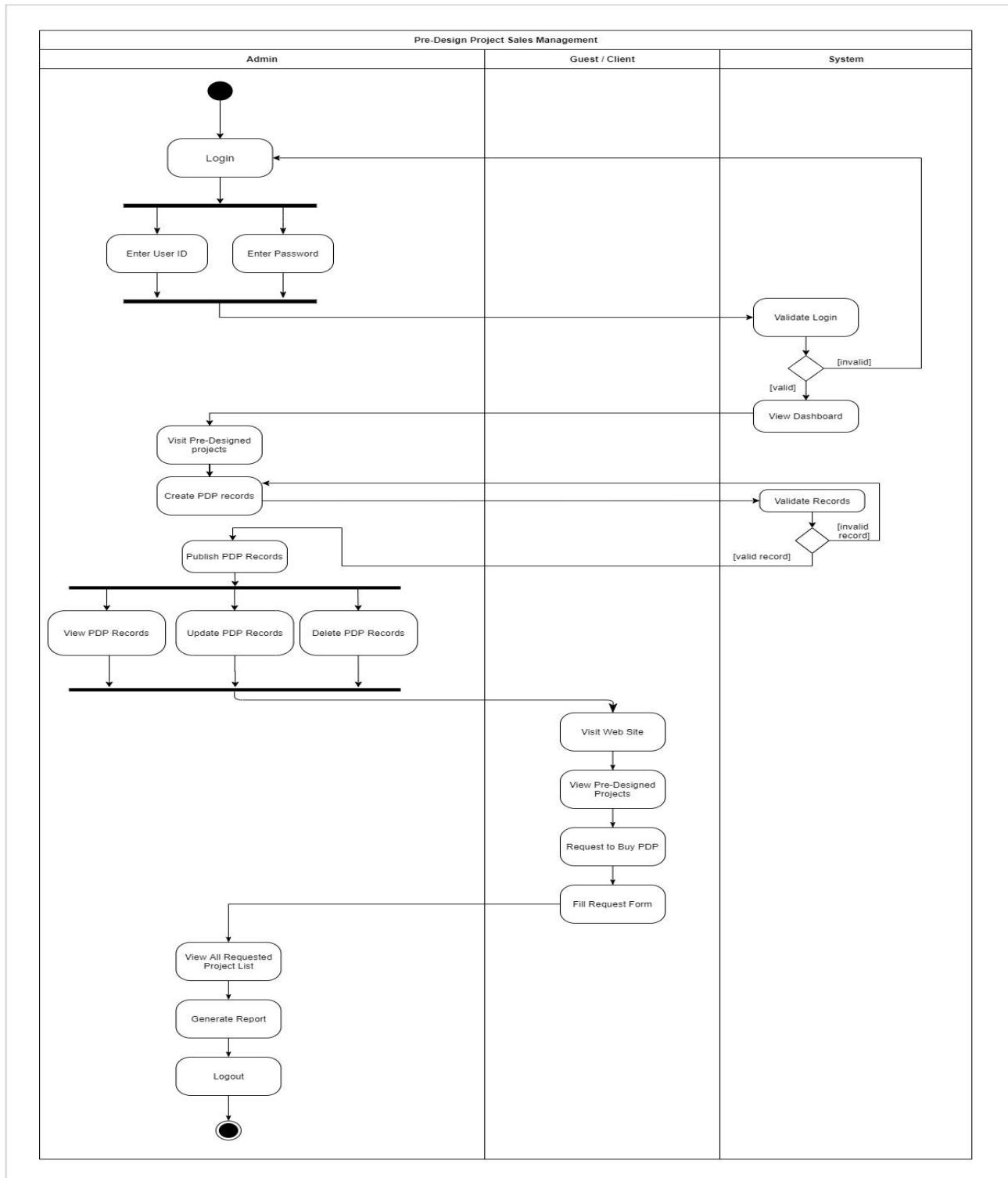
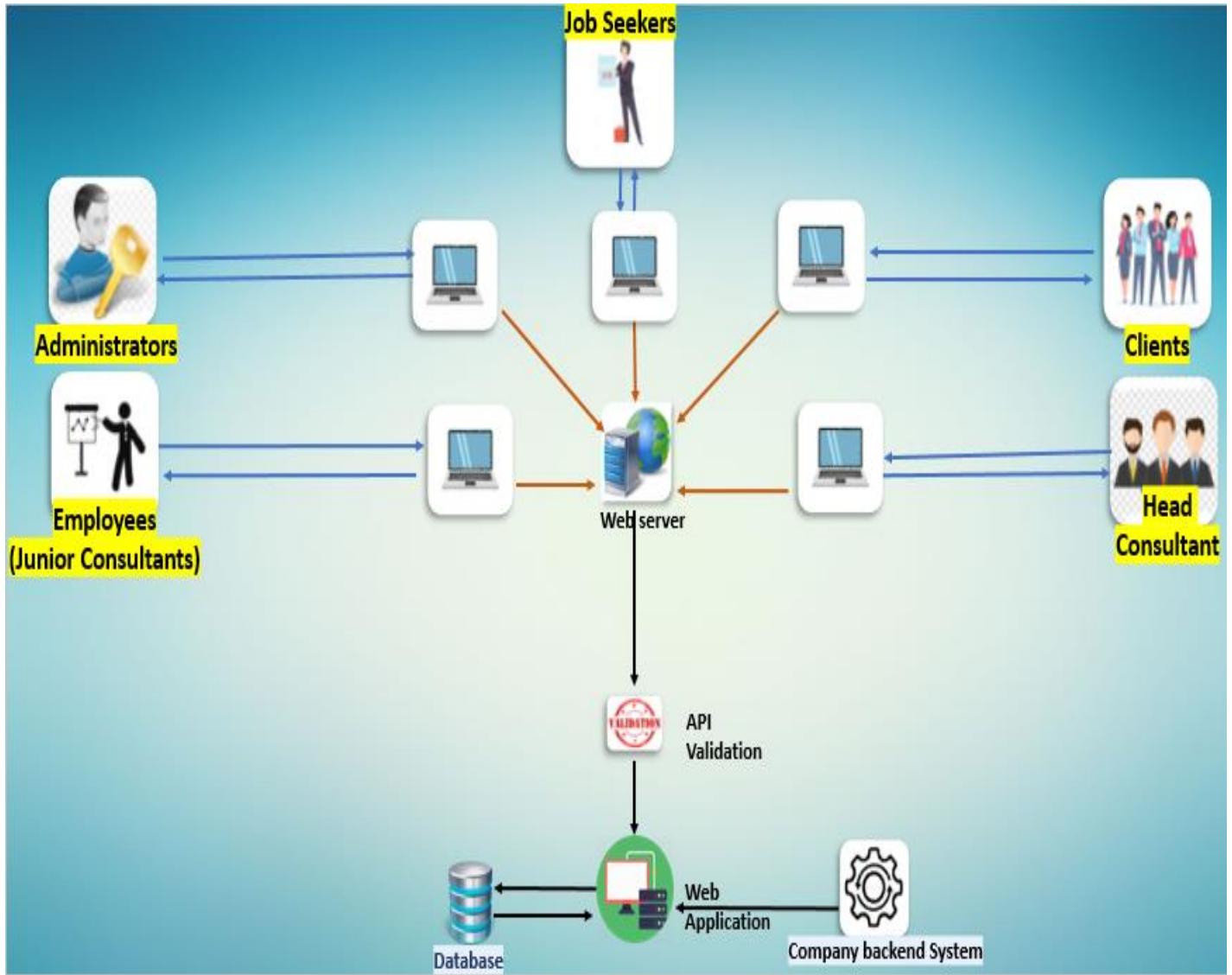


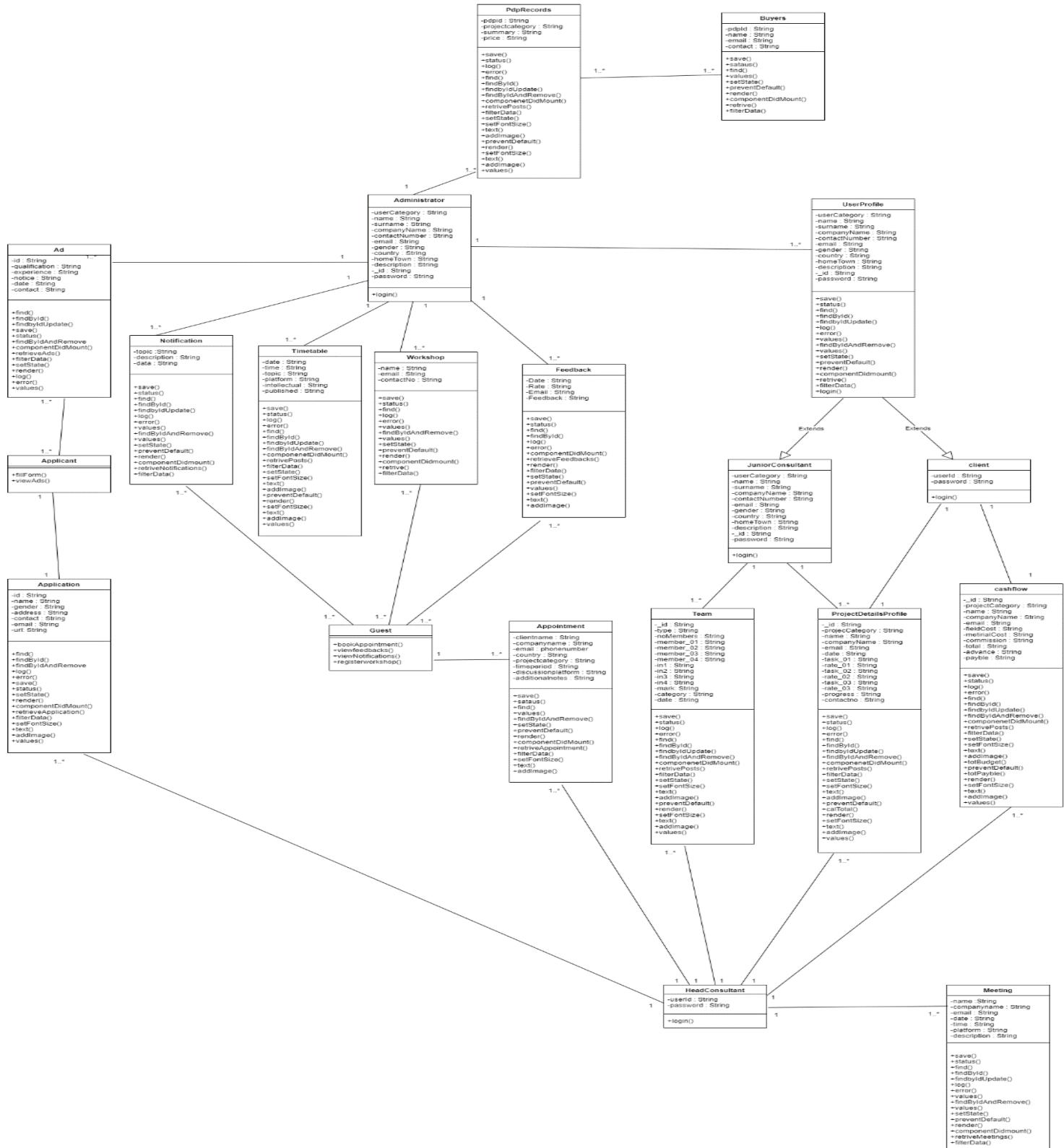
Figure 27 Activity diagram of pre designed project sales management

2.2 Design

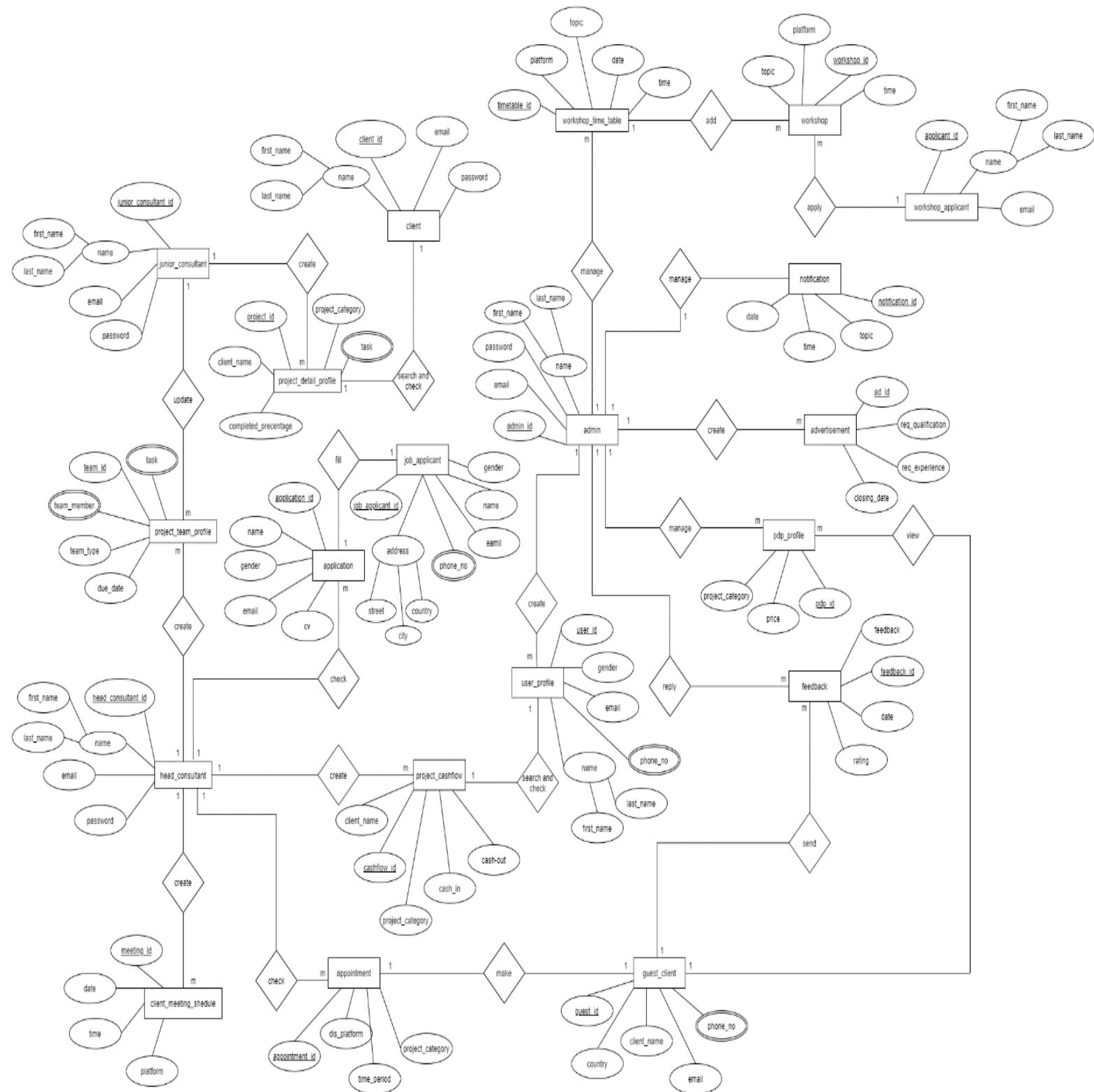
High level architecture diagram



Class diagram



ER diagram



User Interfaces

Home Page

The screenshot shows the homepage of the RAVANA Engineering Consultants (Pvt) Ltd website. At the top, there is a logo featuring a blue globe with a black bull's head on it, followed by the word "RAVANA" in large, bold, black letters, and "Engineering Consultants (pvt) Ltd" in smaller text below. Below the logo is a navigation bar with links for "Home", "Projects", "Get Your Appointment here", "Services", and "Pre-Design Projects". A large banner with a blue-toned cityscape background features the text "Give us a call on - 94776226485 / 94777977566". Below the banner, there is a section titled "News Feed" containing three news items: "World EV Day: Why fleets might go electric before you do", "Helene boosts U.S. solar supply chain with expansion of Minnesota facility", and "Iowa experiment tests potential to pair solar with carbon sequestration". To the right, there is a "Client Reviews!" section with two reviews: one from "Perera W.H.S" and another from "B.C.Adams", both with positive comments. At the bottom, there are sections for "CAREERS" (with a "JOB OPPORTUNITIES" button), "Connect" (with Facebook and Twitter icons), and a newsletter sign-up form. The footer includes a search bar, system tray icons, and a status bar showing the date and time.

RAVANA
Engineering Consultants (pvt) Ltd

Home Projects Get Your Appointment here Services Pre-Design Projects

Give us a call on - 94776226485 / 94777977566

News Feed

World EV Day: Why fleets might go electric before you do
While consumer vehicles take up most of the headlines, the electrification of fleet vehicles is poised to take EVs to the next level.

Helene boosts U.S. solar supply chain with expansion of Minnesota facility
The Mountain Iron facility will become the second-largest solar module manufacturing plant in the U.S.

Iowa experiment tests potential to pair solar with carbon sequestration
An environmental consultant tasked with creating a business model to monetize.....

See more>>

Client Reviews!

Perera W.H.S
Thanks for you the cooparation, Great Work!!!

B.C.Adams
Great to work with you guys, Thanks for everything!!

Give Us Your Feedback!

CAREERS

JOB OPPORTUNITIES

Join Free Online Workshops !!

WE ARE LOOKING FOR NEW CONSULTANTS !!

Apply now

Connect

Email Address

Please enter a valid email address

SUBSCRIBE !

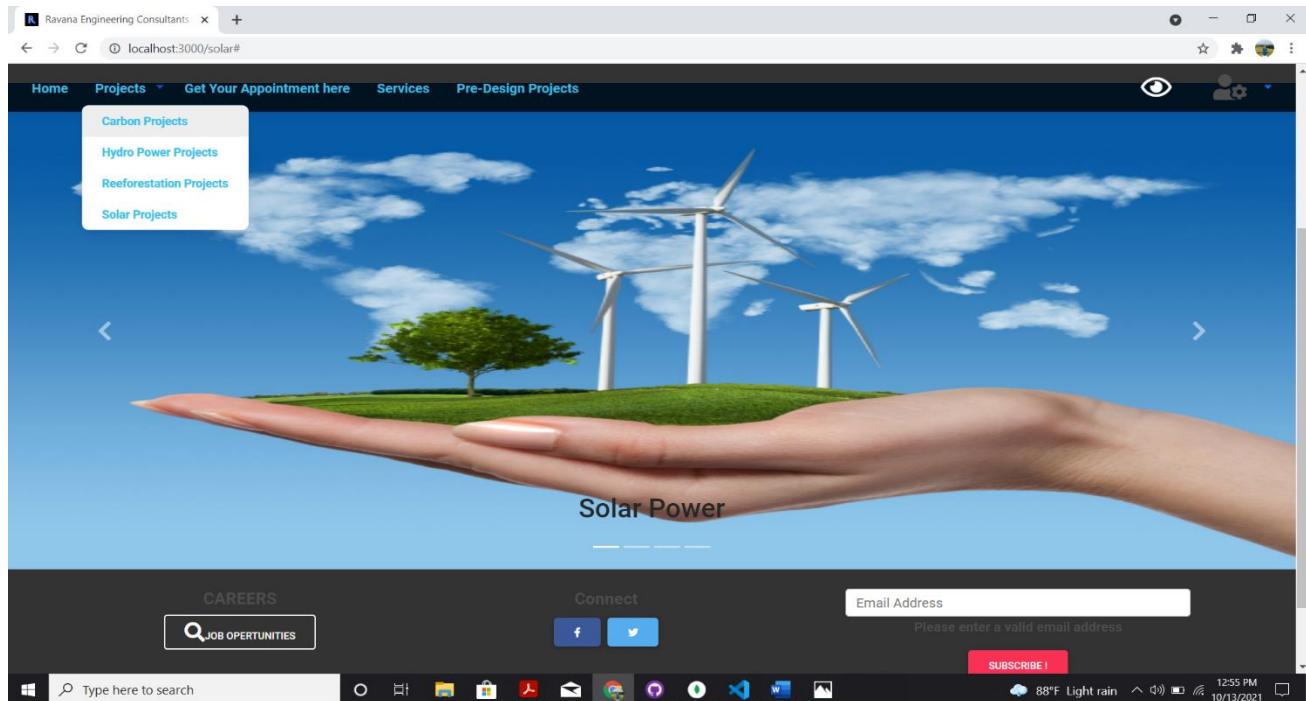
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Type here to search

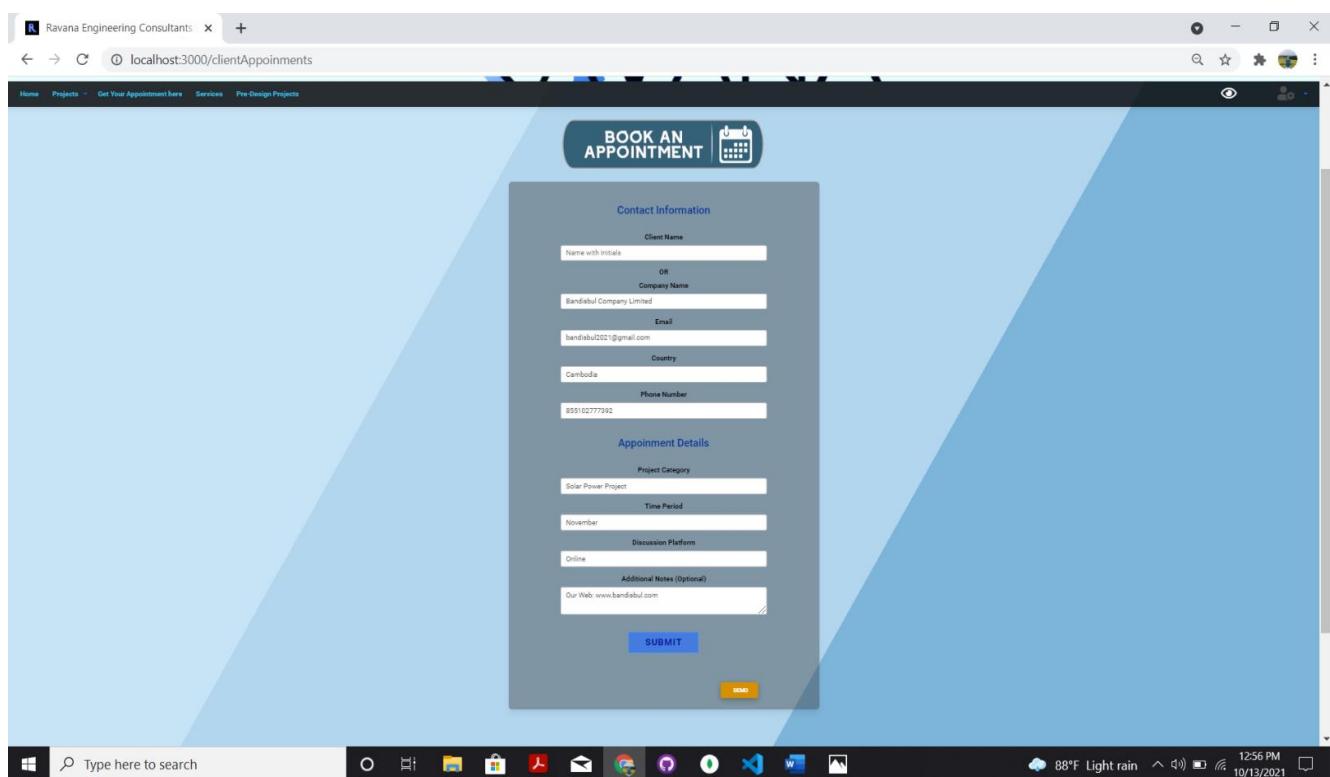
86°F Partly sunny 10:13 PM 10/13/2021

Project Proposal Management

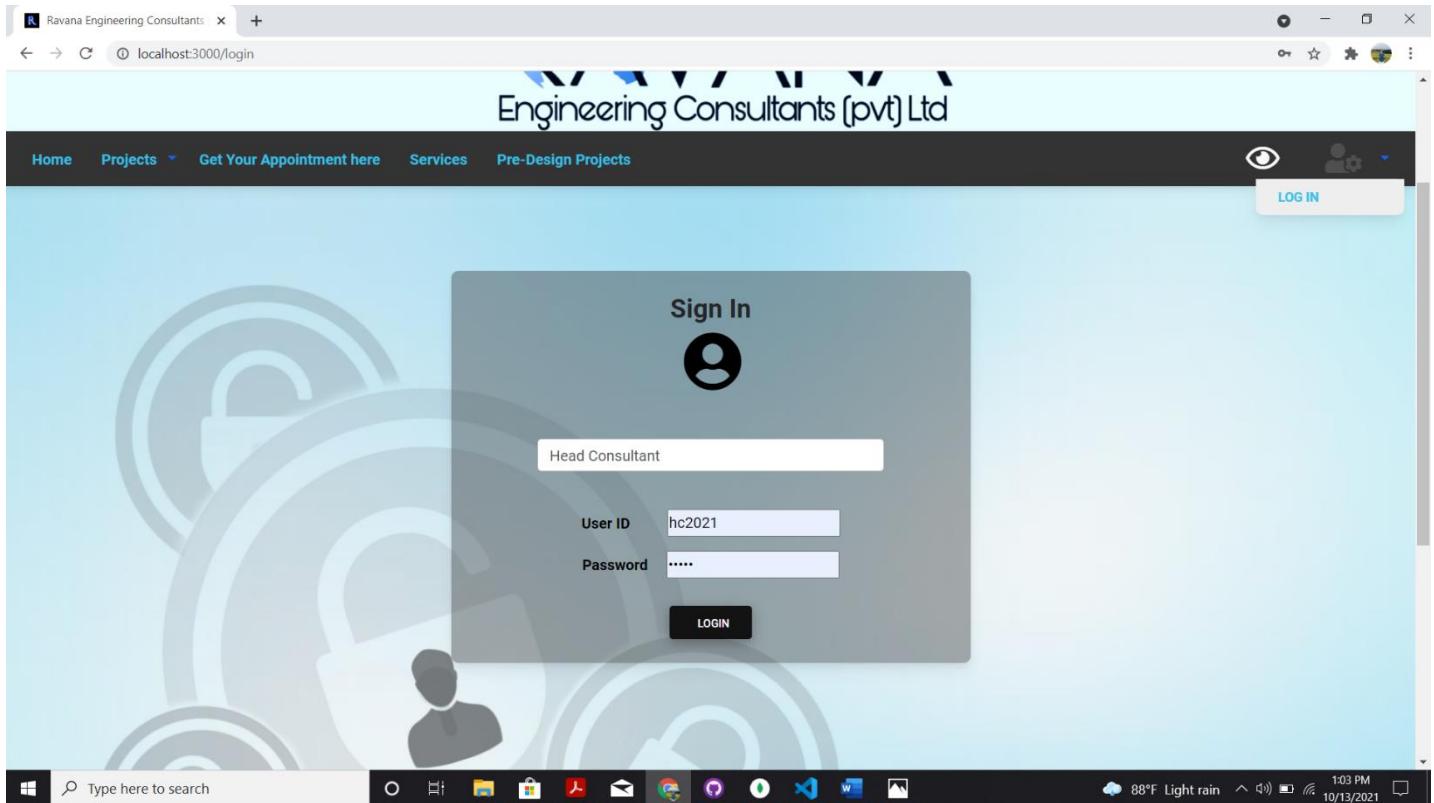
Interface – View previous projects by clients in Project Proposal Management



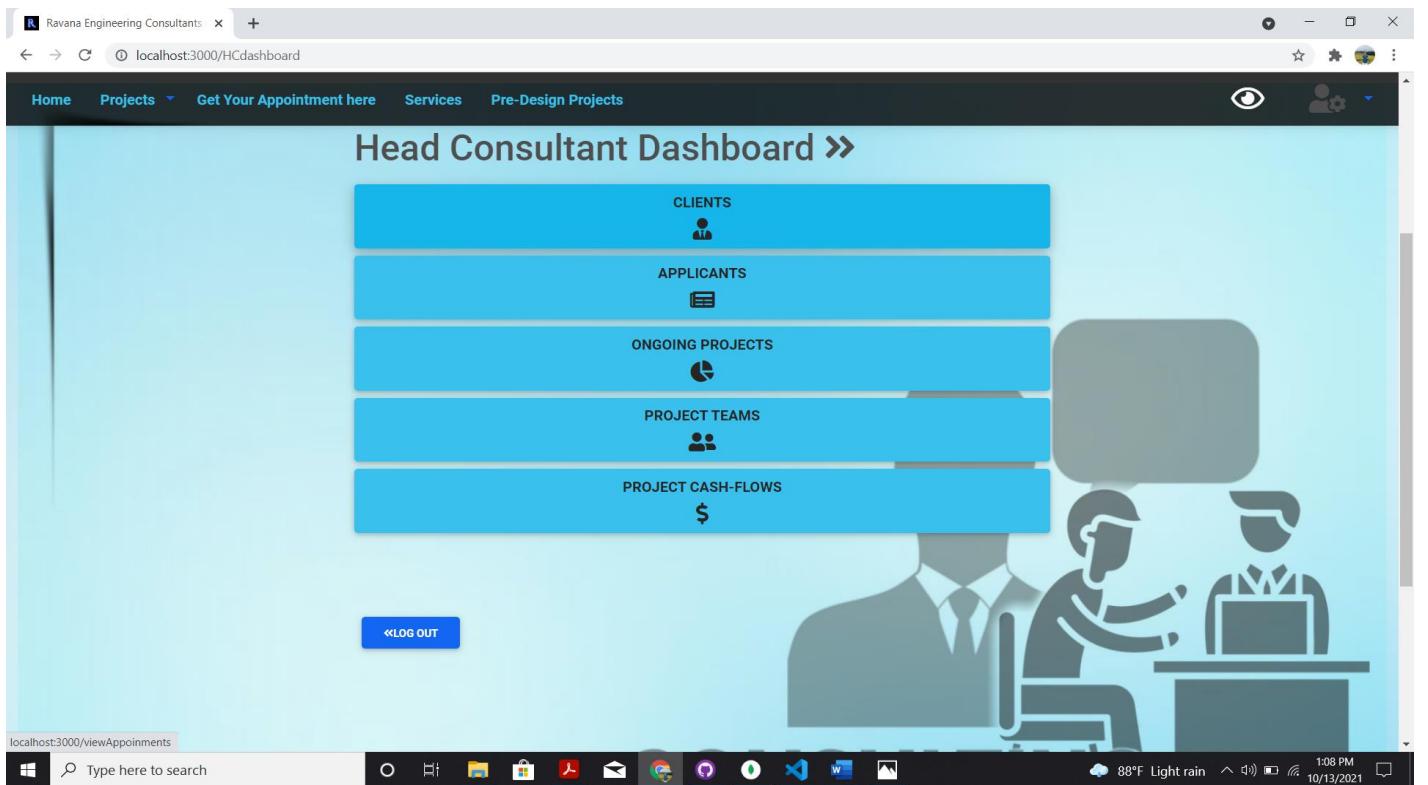
Interface – Book an appointment by clients in Project Proposal Management



Interface – Head Consultant should login to system for operations in Project Proposal Management



Interface – Navigate to clients in head consultant dashboard in Project Proposal Management



Interface – View all appointments and appointments can be ignored in Project Proposal Management

The screenshot shows a web application interface titled "All Appointment Details". At the top, there is a navigation bar with links for Home, Projects, Get Your Appointment here, Services, and Pre-Design Projects. A search bar is also present. Below the navigation, there are two tables:

- Contact Information:** This table lists 1001, 1002, 1003, 1004, and 1005 rows. Each row contains columns for Appointment No, Client Name, Company Name, Email, Phone Number, and Country.
- Appointment Details:** This table lists 1001, 1002, 1003, 1004, and 1005 rows. Each row contains columns for Appointment No, Client Name, Company Name, Project Category, Time Period, Discussion Platform, Additional Notes, and Action (with orange "IGNORE" buttons).

At the bottom of the page, there are buttons for "ADD NEW SCHEDULES" and "GENERATE REPORT". The browser's address bar shows "localhost:3000/viewAppointments#". The taskbar at the bottom includes icons for File, Home, Task View, Start, Taskbar View, Task View, Mail, Google Chrome, File Explorer, OneDrive, Microsoft Edge, and File.

Interface – View all client meeting schedules and meetings can be added edited and deleted in Project Proposal Management

The screenshot shows a web application interface titled "All Client Meeting Shedules". At the top, there is a navigation bar with links for Home, Projects, Get Your Appointment here, Services, and Pre-Design Projects. A search bar is also present. Below the navigation, there is a table:

Meeting No	Clinet Name	Company Name	Email	Date	Time	Platform	Description	Action
M1001	Piyumika		piy99@gmail.com	2021-10-14	07:10	Physical	Client Web: www.piyumika23.com	<button>EDIT</button> <button>REMOVE</button>
M1002	Kayla	Sasha Company Limited	she12@gmail.com	2021-10-24	11:00	Online		<button>EDIT</button> <button>REMOVE</button>
M1003	Isuru	Isuru Enterprises PVT(ltd)	isuru88e@gmail.com	2021-11-17	15:30	Physical	Client Web: www.entreprise.com	<button>EDIT</button> <button>REMOVE</button>
M1004	Devon	Devon Enterprises PVT(ltd)	de34vo@gmail.com	2021-10-30	11:05	Online		<button>EDIT</button> <button>REMOVE</button>
M1005		MAS Holding PVT(ltd)	mas223@gmail.com	2021-12-07	13:45	Online	Client Web: www.mas.com	<button>EDIT</button> <button>REMOVE</button>
M1006		Bandisbul Company Limited	bandisbul2021@gmail.com	2021-11-14	19:00	Online	Client Web: www.bandisbul.com	<button>EDIT</button> <button>REMOVE</button>

At the bottom of the page, there is a button for "ADD NEW SCHEDULES". The browser's address bar shows "localhost:3000/meetings#". The taskbar at the bottom includes icons for File, Home, Task View, Start, Taskbar View, Task View, Mail, Google Chrome, File Explorer, OneDrive, Microsoft Edge, and File.

Interface – Create Meeting schedules in Project Proposal Management

The screenshot shows a web application interface titled "Create a Meeting Schedule". The form fields are as follows:

- Client Name: Enter Client Name (text input)
- OR
Company name: Bandisbul Company Limited (text input)
- Email: bandisbul2021@gmail.com (text input)
- Date: 11/14/2021 (date input)
- Time: 07:00 PM (time input)
- Platform: Online (text input)
- Additional Details (Optional): Client Web: www.bandisbul.com (text area)

At the bottom of the form are two buttons: "PROCEED" (green) and "DEMO" (orange).

Interface – Generate new clients report in Project Proposal Management

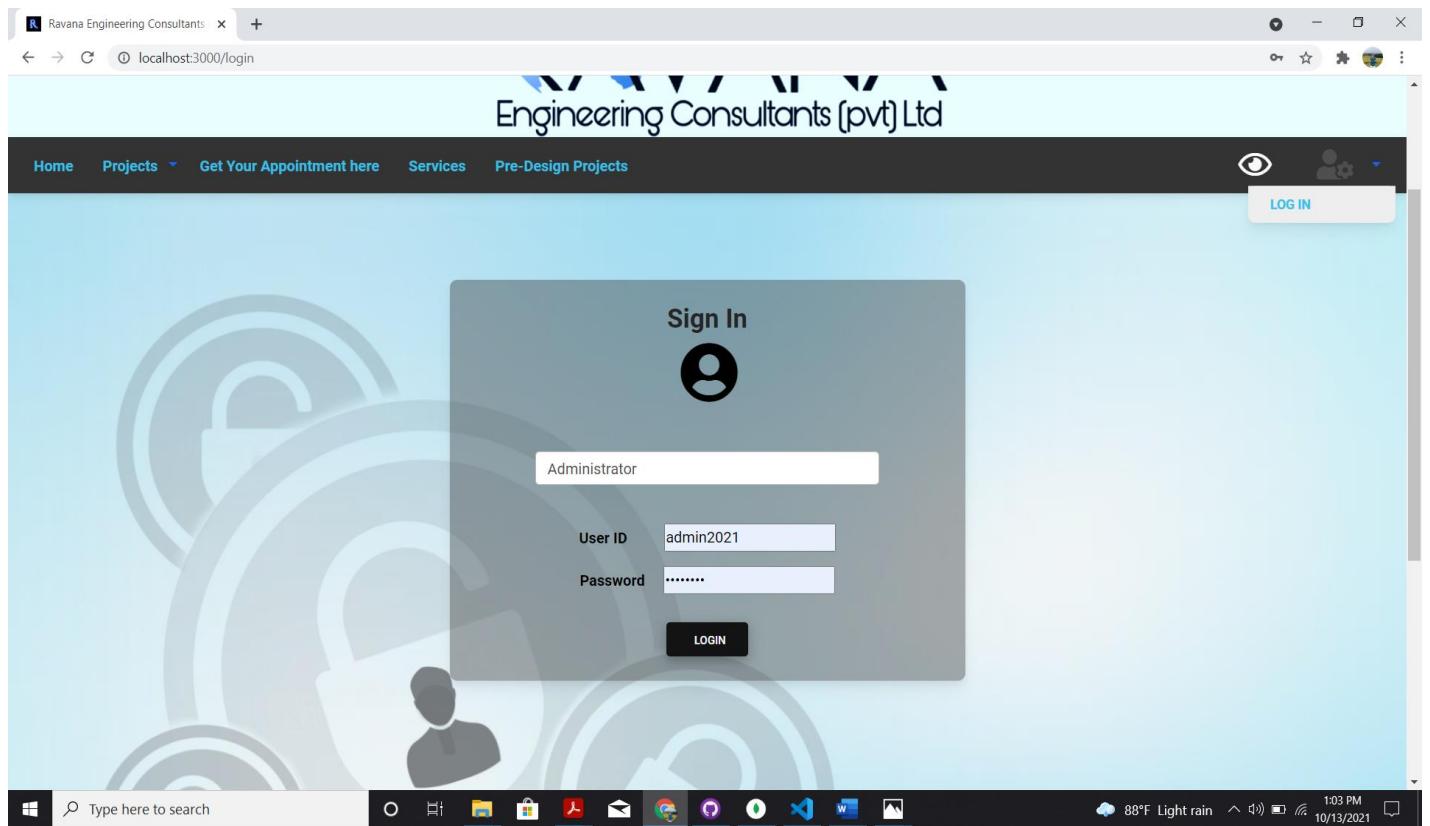
The screenshot shows a web application interface titled "New Clients Report". The table displays the following client information:

#	Client or Company Name	Email	Phone Number	Country
1001	China Company Limited	chaina2021@gmail.com	85510274444	China
1002	DumindaDuminda & Sons Pvt(ltd)	dumindu23@gmail.com	0765432456	Sri lanka
1003	PramithraNew Panda Company Limited	pandu2021@gmail.com	855102777392	Cambodia
1004	DevonMAS Active PVT(ltd)	mas22@gmail.com	76542156789	Maldives
1005	Bandu Company Limited	bandu2021@gmail.com	855102777392	Dubai

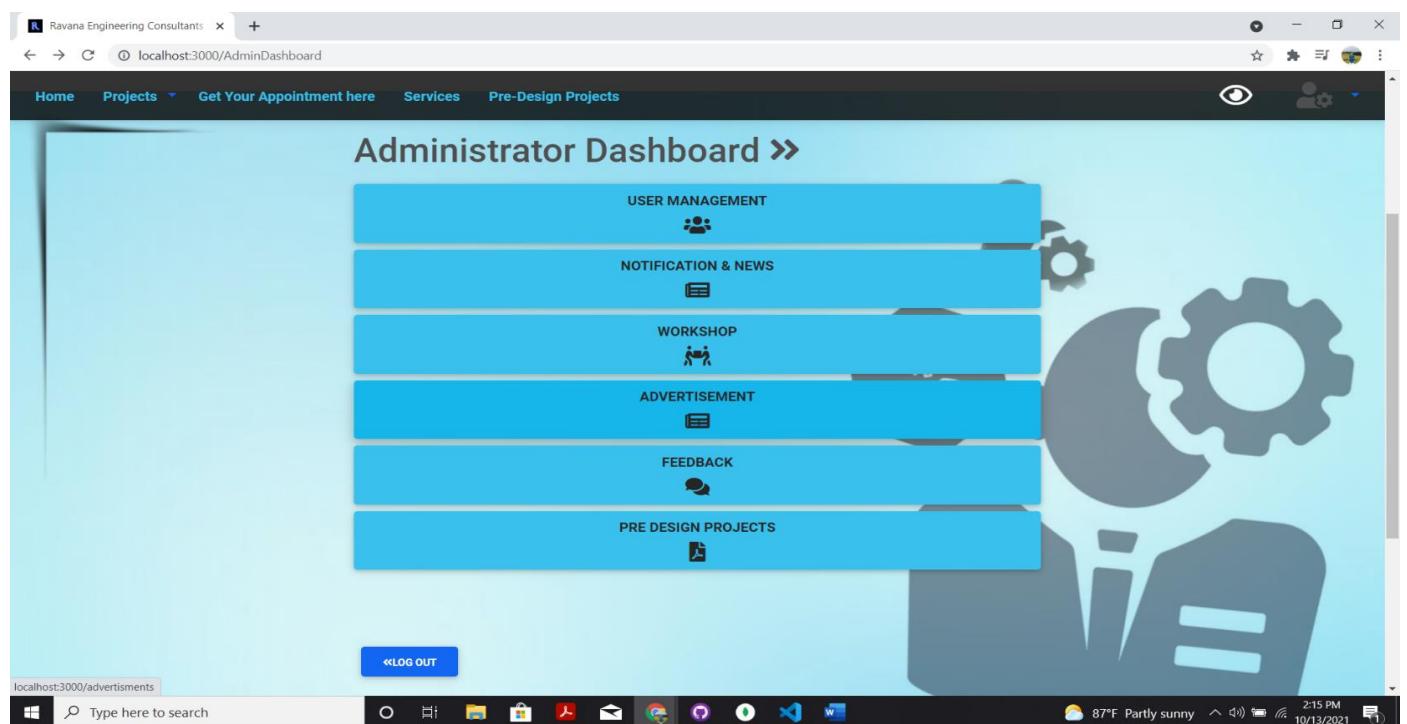
At the bottom of the page is a yellow button labeled "DOWNLOAD PDF".

Consultant Recruitment Management

Interface – Administrator should login to system for operations in Consultant Recruitment Management



Interface – Navigate to advertisement in admin dashboard in Consultant Recruitment Management



Interface – View all advertisements and advertisements can be added edited and deleted in Consultant Recruitment Management

The screenshot shows a web browser window for 'Ravana Engineering Consultants' at 'localhost:3000/advertisements'. The main title is '2021 Job Advertisements'. A green button labeled 'CREATE NEW AD' is visible. Below it is a placeholder image of people in business attire. The text 'We are hiring Junior Consultants' is displayed. A sidebar on the right lists project details: 'Project Category :: Solar Power Project', 'Looking for :: Field Work', 'Qualifications :: Post Graduate', 'Years of Experience :: 8', 'Closing Date :: 2021-10-22', and 'Fill the application & Email your CV'. It also includes a contact number 'Contact for more details: 0715689582' and an 'APPLY NOW' button. The bottom of the screen shows a Windows taskbar with various icons and system status.

Interface – Create advertisements in Consultant Recruitment Management

The screenshot shows a web browser window for 'Ravana Engineering Consultants' at 'localhost:3000/createAdvertisements'. The title is 'Create a New Advertisement'. The form fields include: 'Select image' (with a URL input), 'Select color' (a color picker), 'Project Category' (selected 'Solar Power Project'), 'Looking for' (selected 'Field Workers'), 'Required Qualification' (selected 'Post Graduate'), 'Required Experience' (input '2'), 'Additional Notices (Optional)' (input 'Notices'), 'Closing Date' (input '10/12/2021'), and 'Contact For More Details' (input '0777977566'). At the bottom are 'PUBLISH' and 'DEMO' buttons. The bottom of the screen shows a Windows taskbar with various icons and system status.

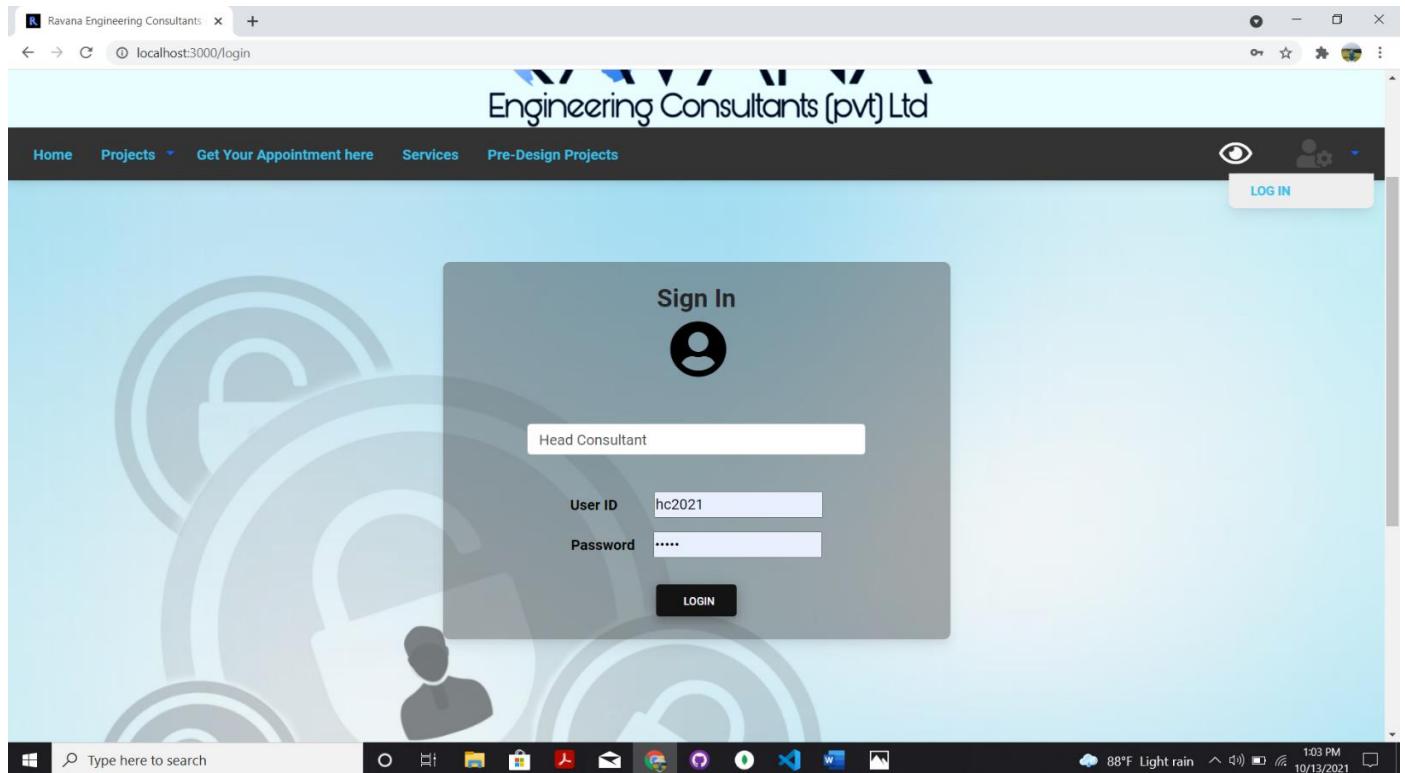
Interface – Applicants view job advertisements in Consultant Recruitment Management

The screenshot shows a web browser window for 'Ravana Engineering Consultants' at localhost:3000/jobAdvertisements. The main heading is 'We are hiring!'. Below it is a small image of several people in business attire. The text 'We are hiring Junior Consultants' is displayed. A note specifies 'Project Category :- Solar Power Project'. Other details include 'Looking for:- Field Work', 'Qualifications :- Post Graduate', 'Years of Experience :- 8', 'Closing Date :- 2021-10-22', and 'Fill the application & Email your CV'. Contact information is provided as 'Contact for more details: 0715689582'. A purple 'APPLY NOW' button is at the bottom. The browser's address bar shows 'localhost:3000/jobApplicatonForm'. The taskbar at the bottom includes icons for File Explorer, OneDrive, Mail, Edge, Google Chrome, File Explorer, Task View, and a search bar.

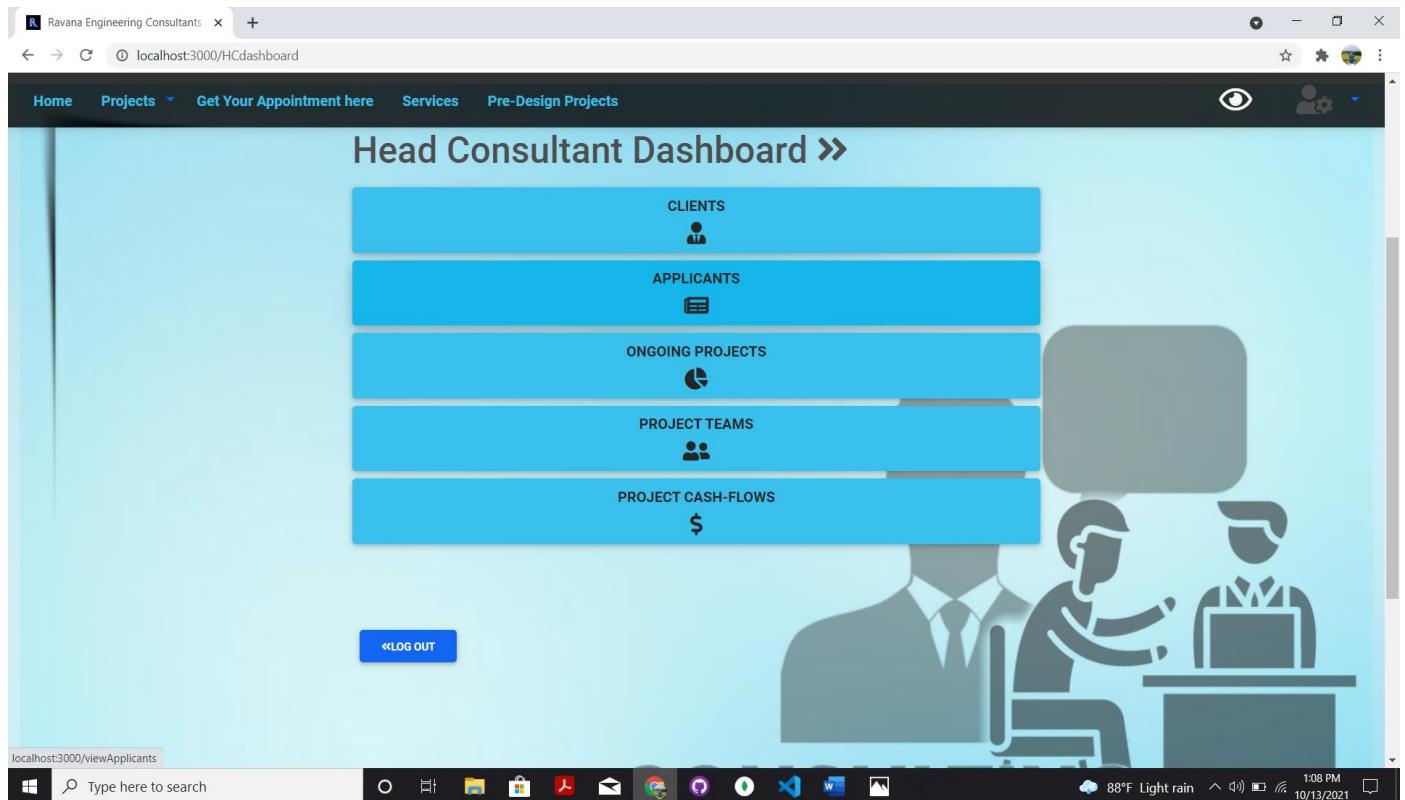
Interface – Applicants fill application form in Consultant Recruitment Management

The screenshot shows a web browser window for 'Ravana Engineering Consultants' at localhost:3000/jobApplicatonForm. The form fields include 'Full Name' (A.S.P.Rajapaksha), gender options ('Male' or 'Female'), 'NIC Number' (956725864V), 'Address' (No.23/100, Colombo road, Chilaw), 'Contact Number' (0769454552), 'Email' (ashenofficial45@gmail.com), and 'LinkedIn Url' (https://ashenofficial.linkedin.com). There is also a note for sending the CV to ravanaengineering@gmail.com. A blue 'SUBMIT' button is at the bottom right, and an orange 'DEMO' button is below it. The browser's address bar shows 'localhost:3000/jobApplicatonForm'. The taskbar at the bottom includes icons for File Explorer, OneDrive, Mail, Edge, Google Chrome, File Explorer, Task View, and a search bar.

Interface – Head Consultant should login to system for operations in Consultant Recruitment Management



Interface – Navigate to applicants in head consultant dashboard in Consultant Recruitment Management



Interface – View all applicant's details and details can be deleted in Consultant Recruitment Management

The screenshot shows a web browser window titled "Ravana Engineering Consultants" at "localhost:3000/viewApplicants". The page has a header with navigation links: Home, Projects, Get Your Appointment here, Services, Pre-Design Projects, and a user icon. Below the header is a large blue banner with the text "All Applicant Details". A search bar labeled "Search by name" is located in the top right corner. The main content area contains a table with columns: #, Name, Gender, NIC, Address, Contact, Email, LinkedIn Url, and Action. The table lists six applicants with their details and a red trash icon in the Action column. At the bottom of the table is a yellow "GENERATE REPORT" button. The browser's address bar shows "localhost:3000/viewApplicants#". The taskbar at the bottom includes the Windows Start button, a search bar, and various pinned application icons.

#	Name	Gender	NIC	Address	Contact	Email	LinkedIn Url	Action
101	A.M.Pramoda Piyumali Gunasekara	Female	996712575v	Chilaw	0705601441	pramodapiyumali@gmail.com	https://pramoda/LinkedIn.com	
102	K.A.Kesara Dhananjaya	Male	958723614v	No.12/100, New Kandy road, Malabe	0715689786	kesh@gmail.com	https://kesaradananjaya/LinkedIn.com	
103	A.M.Tharaka Piyumali	Male	970160492v	No: 707, Galle Road, Moratuwa	0713262364	tharaka97@gmail.com	https://tharaka/LinkedIn.com	
104	P.A.Thilona Abhimani	Female	953247852v	No.248, Miriswatta Rd, Gampaha	0768923417	thilona@gmail.com	https://thilonaAbhi/LinkedIn.com	
105	A.S.P.Rajapaksha	Male	956725864v	No.23/100, Colombo road, Chilaw	0769454552	ashenofficial45@gmail.com	https://ashenofficial.linkedin.com	
106	Pasan Liyanage	Male	945682412v	No.12/100, Wariyapola road, Kurunagala	0715621357	pasan78@gmail.com	https://pasanLiyanage/LinkedIn.com	

GENERATE REPORT

Interface – Generate newly selected junior consultant report in Consultant Recruitment Management

The screenshot shows a web browser window titled "Ravana Engineering Consultants" at "localhost:3000/new/cReport". The page has a header with navigation links: Home, Projects, Get Your Appointment here, Services, Pre-Design Projects, and a user icon. Below the header is a large blue banner with the text "Newly Selected Junior Consultants Report". A search bar labeled "Search by name" is located in the top right corner. The main content area contains a table with columns: #, Name, Gender, NIC, Address, Contact No, and Email. The table lists the same six applicants as the previous page, with their details and a red trash icon in the Action column. At the bottom of the table is a yellow "DOWNLOAD PDF" button. The browser's address bar shows "localhost:3000/new/cReport". The taskbar at the bottom includes the Windows Start button, a search bar, and various pinned application icons.

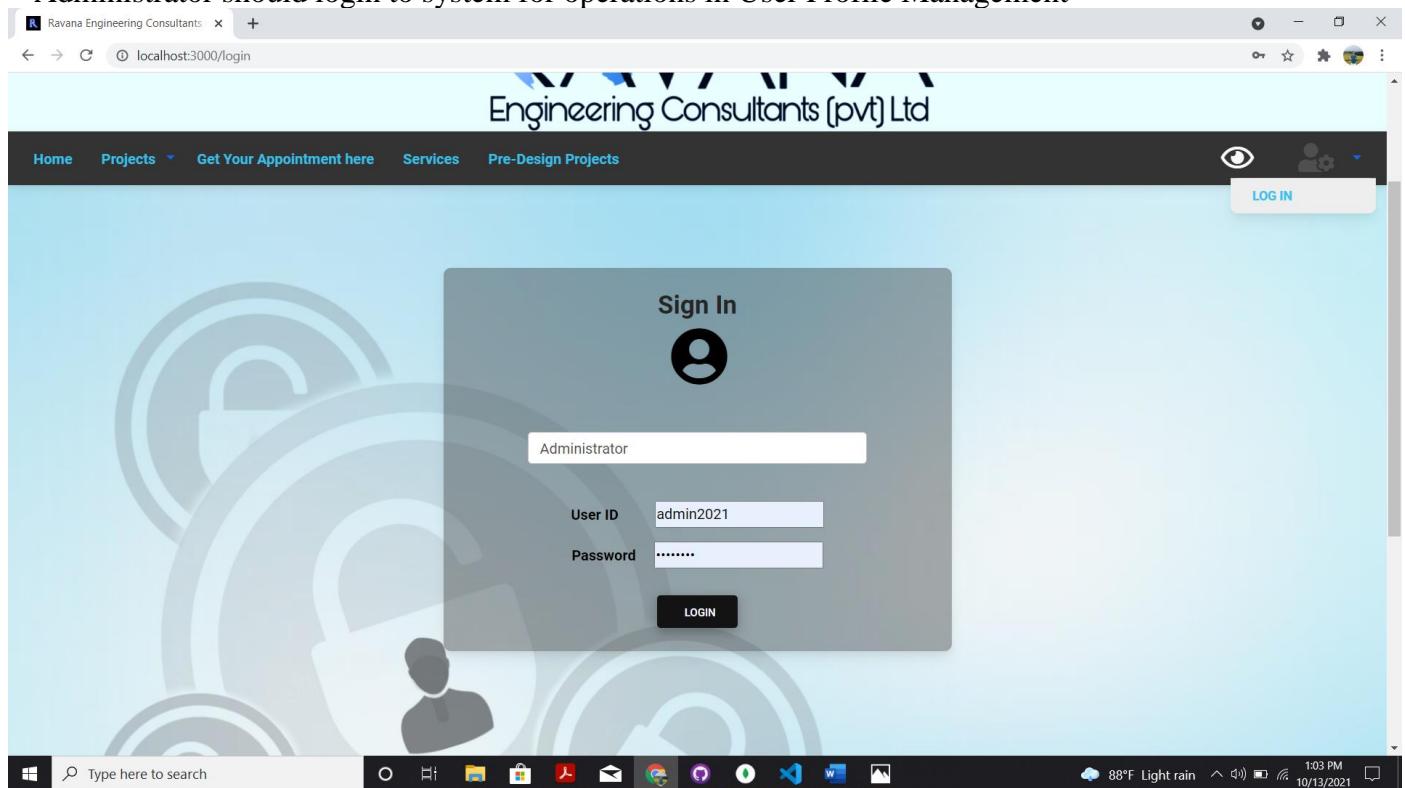
#	Name	Gender	NIC	Address	Contact No	Email
101	A.M.Pramoda Piyumali Gunasekara	Female	996712575v	Chilaw	0705601441	pramodapiyumali@gmail.com
102	K.A.Kesara Dhananjaya	Male	958723614v	No.12/100, New Kandy road, Malabe	0715689786	kesh@gmail.com
103	A.M.Tharaka Piyumali	Male	970160492v	No: 707, Galle Road, Moratuwa	0713262364	tharaka97@gmail.com
104	P.A.Thilona Abhimani	Female	953247852v	No.248, Miriswatta Rd, Gampaha	0768923417	thilona@gmail.com
105	A.S.P.Rajapaksha	Male	956725864v	No.23/100, Colombo road, Chilaw	0769454552	ashenofficial45@gmail.com
106	Pasan Liyanage	Male	945682412v	No.12/100, Wariyapola road, Kurunagala	0715621357	pasan78@gmail.com

DOWNLOAD PDF

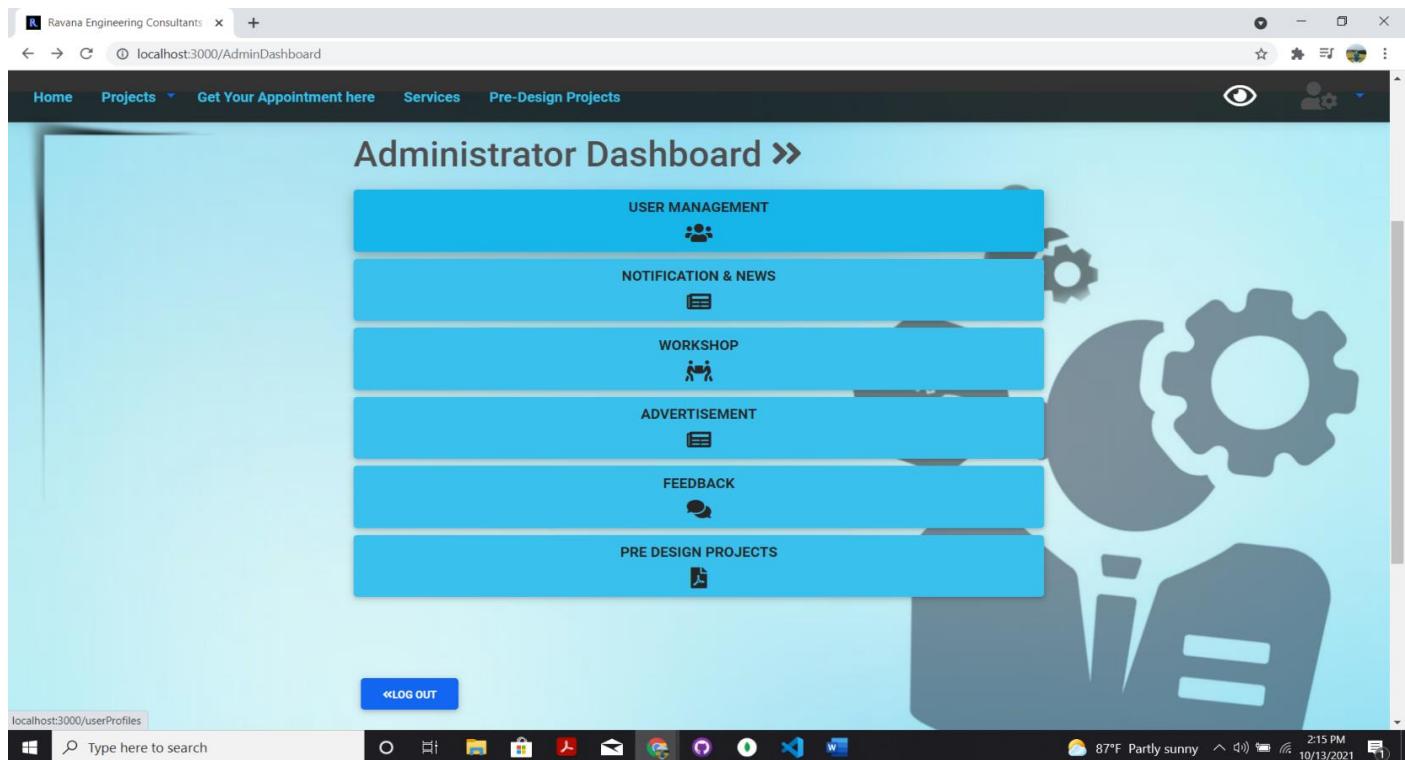
User Profile & Project Financial Management

User Profile Management

Interface – Administrator should login to system for operations in User Profile Management



Interface – Navigate to advertisement in admin dashboard in User Profile Management



Interface – View all user profiles and profiles can be added edited and deleted in User Profile Management

The screenshot shows a web application interface titled "All User Profiles". At the top, there is a navigation bar with links to Home, Projects, Get Your Appointment here, Services, and Pre-Design Projects. A search bar labeled "Search By UserID/User Category" is also present.

User Personal Information:

Reg_No	User ID	Name	Surname	Company Name	NIC	Gender	Country	Contact Number	Email
1001	JC2000987657	Thanindu	Rathnayake		2000987657v	Male	Sri Lanka	9476126745	thanindu@gmail.com
1002	JC200045623566	Pavani	Perera		200045623566	Female	Sri Lanka	947685432	pavani.peral@gmail.com
1003	JC20009876678	Passindu	Gamage		20009876678v	Male	Sri Lanka	9477324242	passindu12@gmail.com
1004	CB16555893229			ngmFoundations		Not Mentioned	Japan	816555893229	nmoffice@gmail.com
1005	CB551027779909			XTTY1999		Not Mentioned	Cambodia	8551027779909	XTTY1999@gmail.com

User System Information:

Reg_No	User ID	Name	Surname	Company Name	User Category	Password	Action
1001	JC2000987657	Thanindu	Rathnayake		Junior Consultant	rlana123	<button>EDIT</button> <button>DELETE</button>
1002	JC200045623566	Pavani	Perera		Junior Consultant	rlana121	<button>EDIT</button> <button>DELETE</button>
1003	JC20009876678	Passindu	Gamage		Junior Consultant	rlana333	<button>EDIT</button> <button>DELETE</button>
1004	CB16555893229			ngmFoundations	Client	rlana444	<button>EDIT</button> <button>DELETE</button>
1005	CB551027779909			XTTY1999	Client	rlana999	<button>EDIT</button> <button>DELETE</button>

[CREATE A NEW USER PROFILE](#)

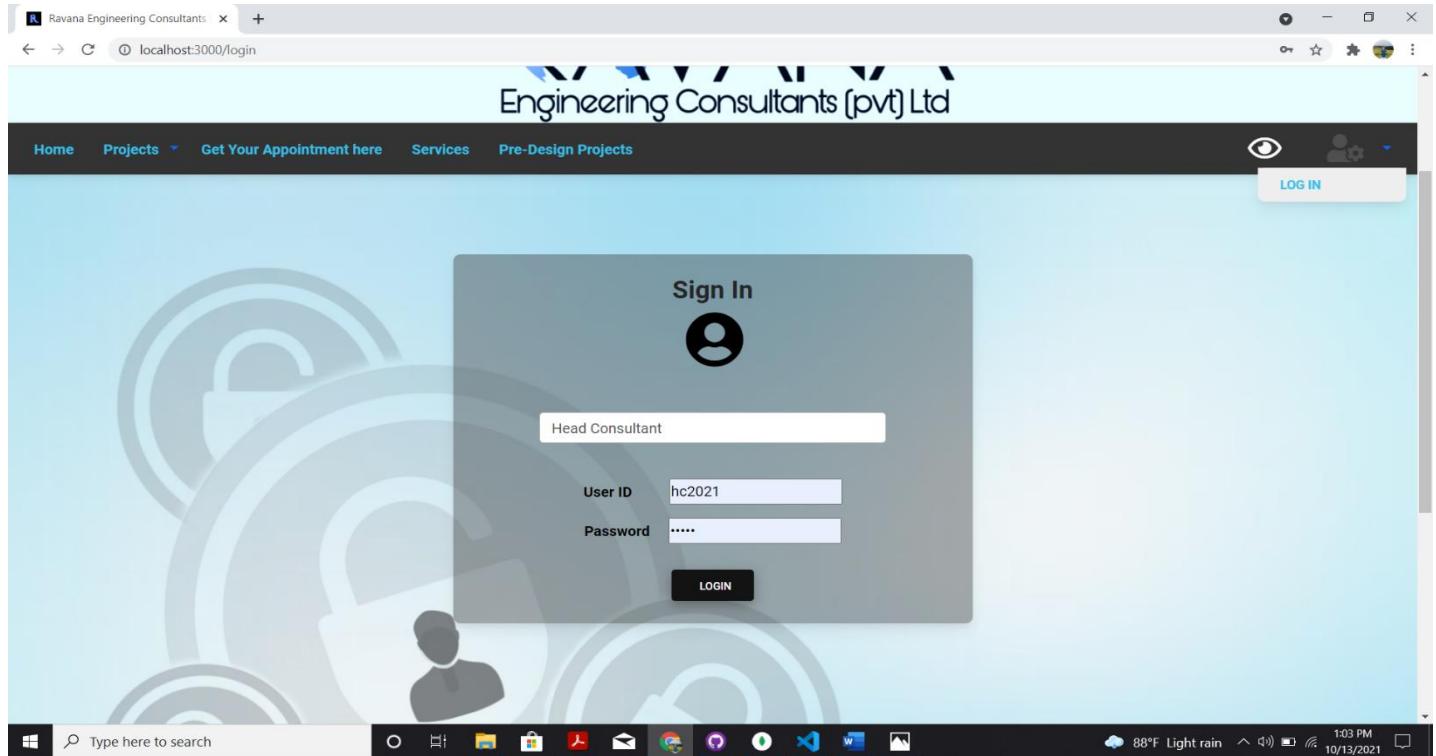
Interface – Create user profiles in User Profile Management

The screenshot shows a modal dialog titled "Create A New User Profile". The dialog has several sections:

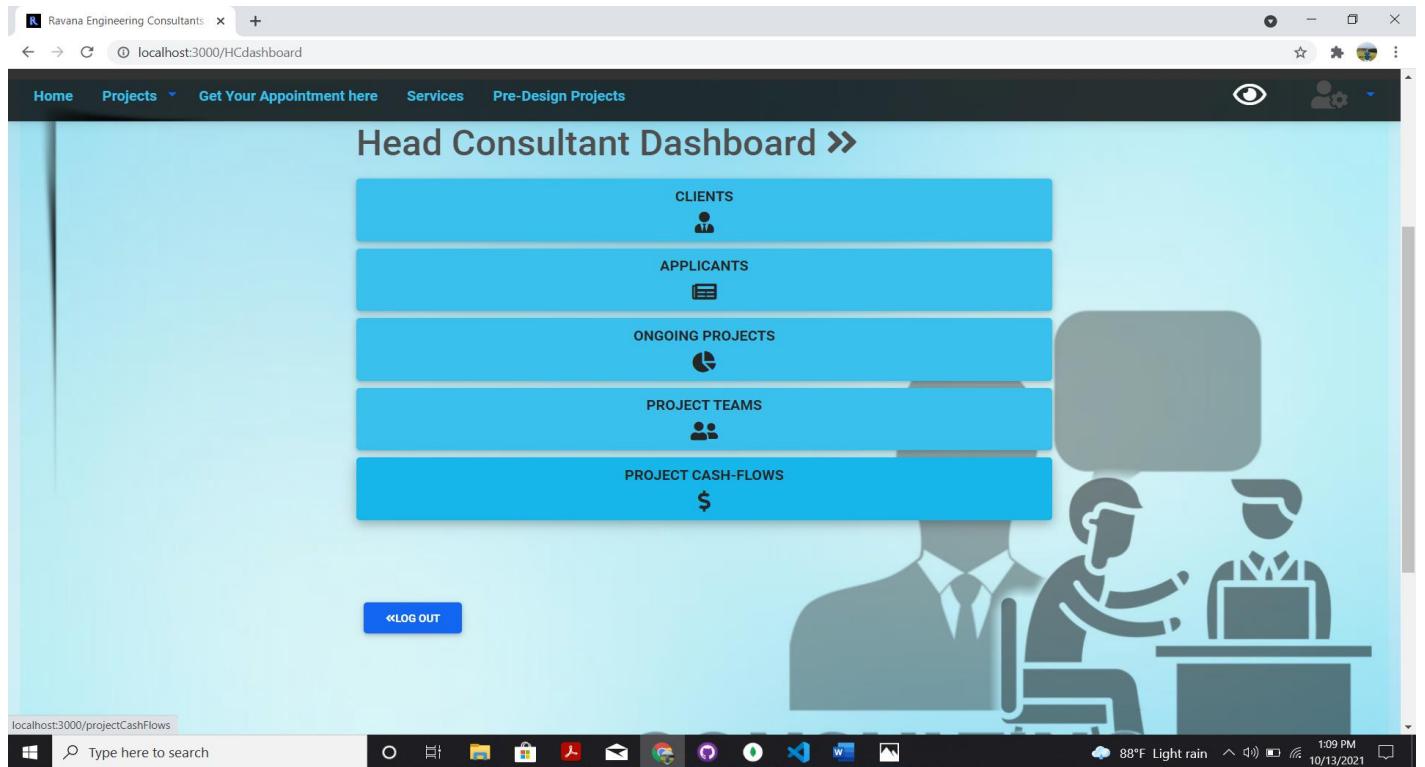
- Select A User Category:** Junior Consultant
- User Personal Information:**
 - Name: Roshanika OR Company Name: Roshanika
 - NIC: 20009843408
 - Sex: Male
 - Gender: Male
 - Country: Sri Lanka
 - Contact Number: 947685432
 - Email: roshanika@gmail.com
- Assign User ID & Password:**
 - User ID: rshanika
 - Administrator for Client:
 - Administrator for Admin Connectors:
 - ID Connection / JBoss: rshanika
 - Password: rshanika

Project Financial Management

Interface – Head Consultant should login to system for operations in Project Financial Management



Interface – Navigate to project cash-flows in head consultant dashboard in Project Financial Management



Interface – View all project cash-flows and cash-flows can be added edited and deleted in Project Financial Management

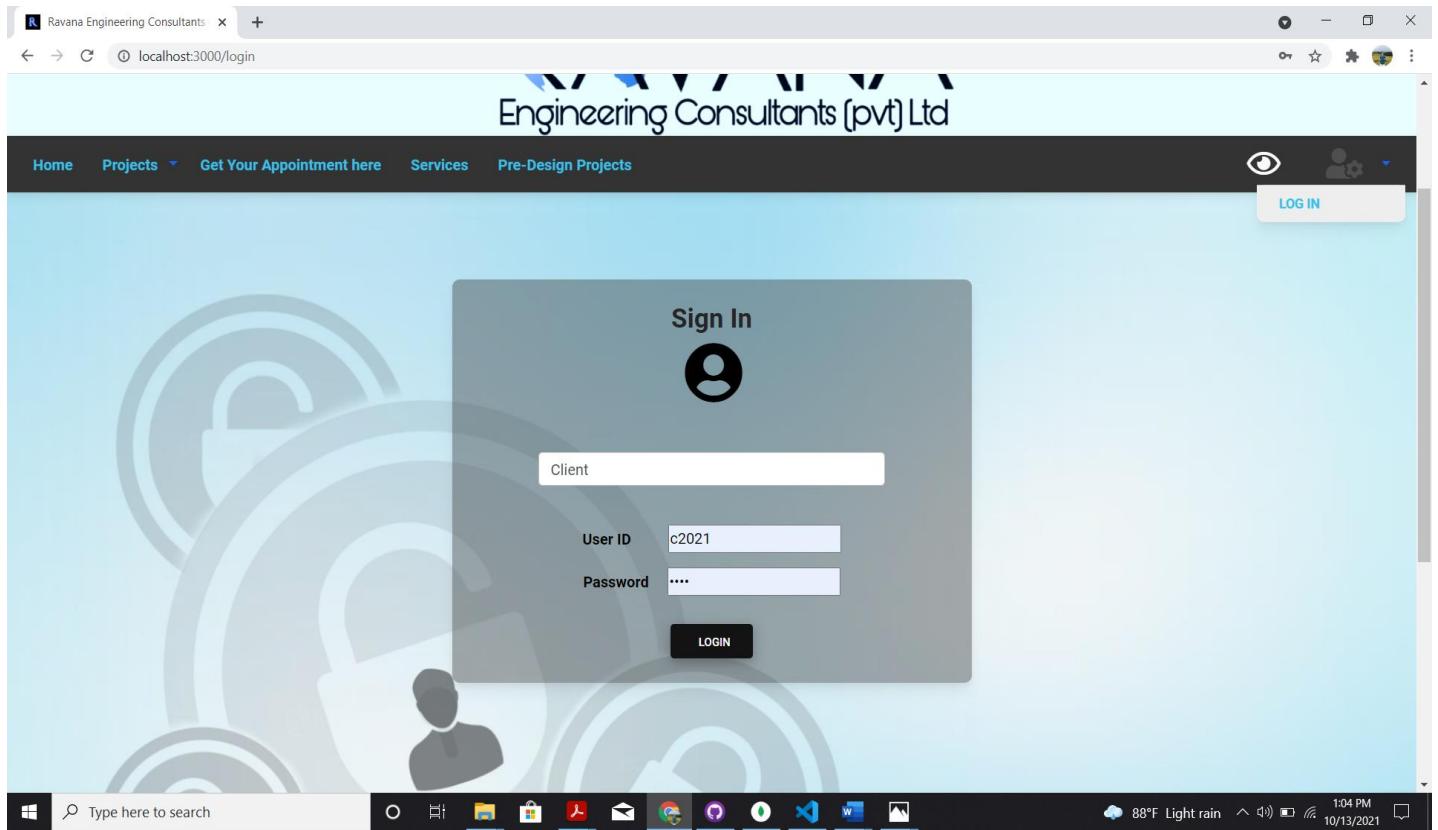
Client Contact Information							
Cash-Flow ID	Client Name	Company Name	Client/Company Email	Contact Number	Project Category	Date of publication	
Cash94112324599		NPV Company Limited	ngm2021@gmail.com	94112324599	Hydro Power Project	2021-10-01	
Cash91341027777		XTV Company	ctv156@yahoo.com	91341027777	Reforestation Project	2021-10-02	
Cash94117887324		Sakya Company Limited	bandsu002@gmail.com	94117887324	Solar Power Project	2021-10-07	
Cash94116888007		Sanasa Company Limited	sanaaa007@yahoo.com	94116888007	Carbon Project	2021-10-10	
Cash85510277392		Bandsu Company Limited	bandsu002@gmail.com	85510277392	Reforestation Project	2021-10-12	

Project Cash-Flow (Rupees)							
Cash-Flow ID	Field Survey Cost	Project Material Cost	Project commission	Total Project Budget	Advance Payment	Total Payable	Action
Cash94112324599	300000.00	45000.00	20000.00	960000.00	30000.00	650000.00	<button>EDIT</button> <button>DELETE</button>
Cash91341027777	1000000.00	20000.00	100000.00	1200000.00	30000.00	1900000.00	<button>EDIT</button> <button>DELETE</button>
Cash94117887324	100000.00	40000.00	250000.00	390000.00	300000.00	90000.00	<button>EDIT</button> <button>DELETE</button>
Cash94116888007	250000.00	40000.00	100000.00	750000.00	50000.00	700000.00	<button>EDIT</button> <button>DELETE</button>
Cash85510277392	300000.00	45000.00	20000.00	950000.00	300000.00	650000.00	<button>EDIT</button> <button>DELETE</button>

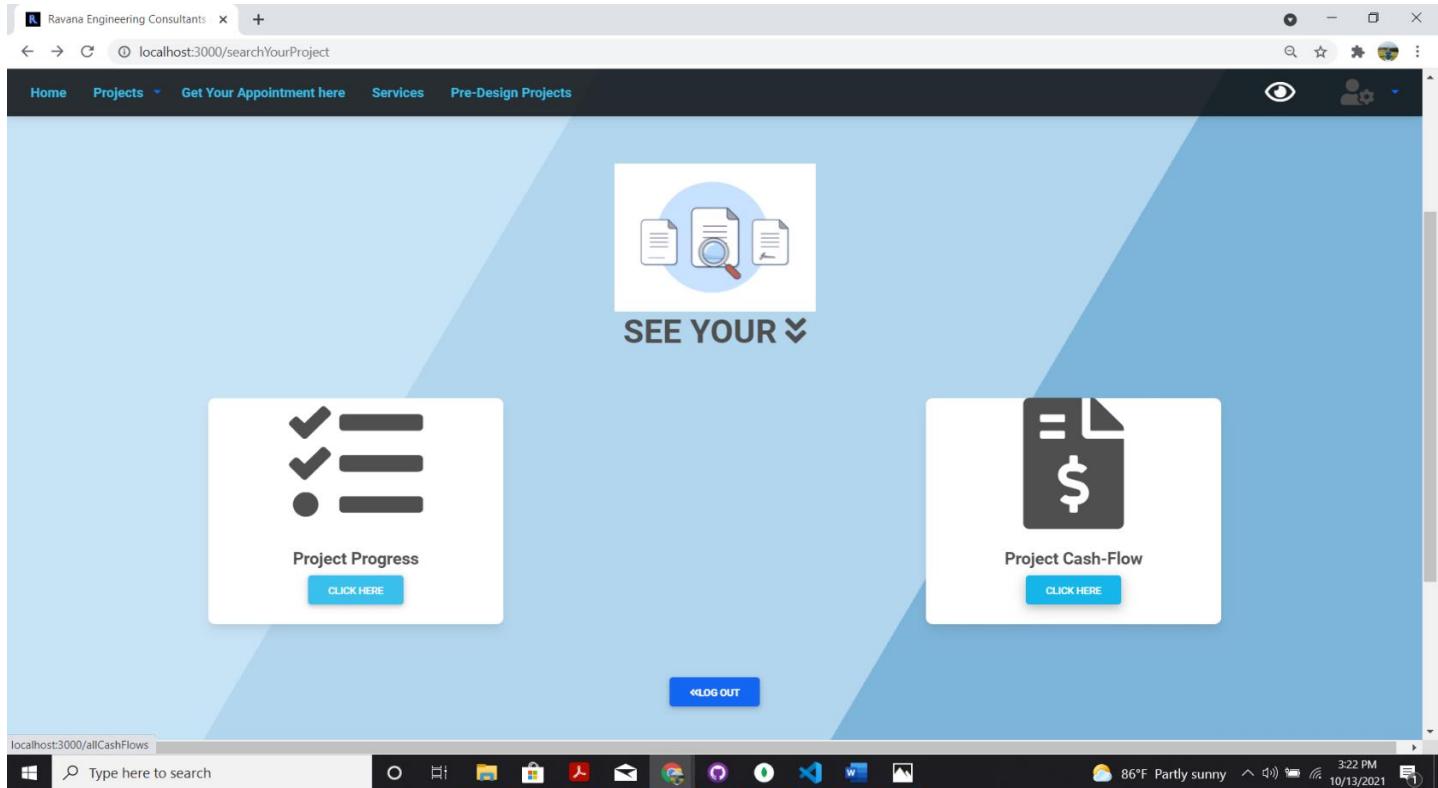
[CREATE A NEW PROJECT CASHFLOW STATEMENT](#) [GENERATE REPORT](#)

Interface – Create project cash-flow statements in Project Financial Management

Interface – Client should login to system for operations in Project Financial Management



Interface – Navigate to project cash-flows to view cash-flow in Project Financial Management



Interface – Search project cash-flows by company name or cash-flow id in Project Financial Management

The screenshot shows a web browser window titled "Ravana Engineering Consultants" with the URL "localhost:3000/allCashFlows". The page header includes the company logo and navigation links: Home, Projects, Get Your Appointment here, Services, Pre-Design Projects, and user icons. A search bar at the top contains the placeholder text "Search By Cash-Flow ID or Client/Company Name". Below the search bar, the title "Projects Cash-Flows" is displayed. A list of five projects is shown:

- 1 (Hydro Power Project) NPM Company Limited
- 2 (Reforestation Project) TXY Company
- 3 (Solar Power Project) Sakya Company Limited
- 4 (Carbon Project) Sanasa Company Limited
- 5 (Reforestation Project) Bandisbul Company Limited

Interface – view project cash-flow in Project Financial Management

The screenshot shows a web browser window titled "Ravana Engineering Consultants" with the URL "localhost:3000/viewProjectCashFlow/Cash94112324589". The page header includes the company logo and navigation links. The main content area displays a "Project Cash-Flow" card with the identifier "Cash94112324589". The card contains the following details:

Project Category: Hydro Power Project
Client Name: NPM Company Limited
Company Name: npm2021@gmail.com
Email: npm2021@gmail.com

Project Budget Details:

Field Survey Cost	30000.00
Project Material Cost	45000.00
Project Commission	25000.00
Total Project Budget	95000.00

Project Payment Details:

Advance Payment	30000.00
Total Payable	65000.00

At the bottom of the card, there is a note: "If you want inquiry contact this number - 94776226485".

Interface – Generate projects financial details report in Project Financial Management

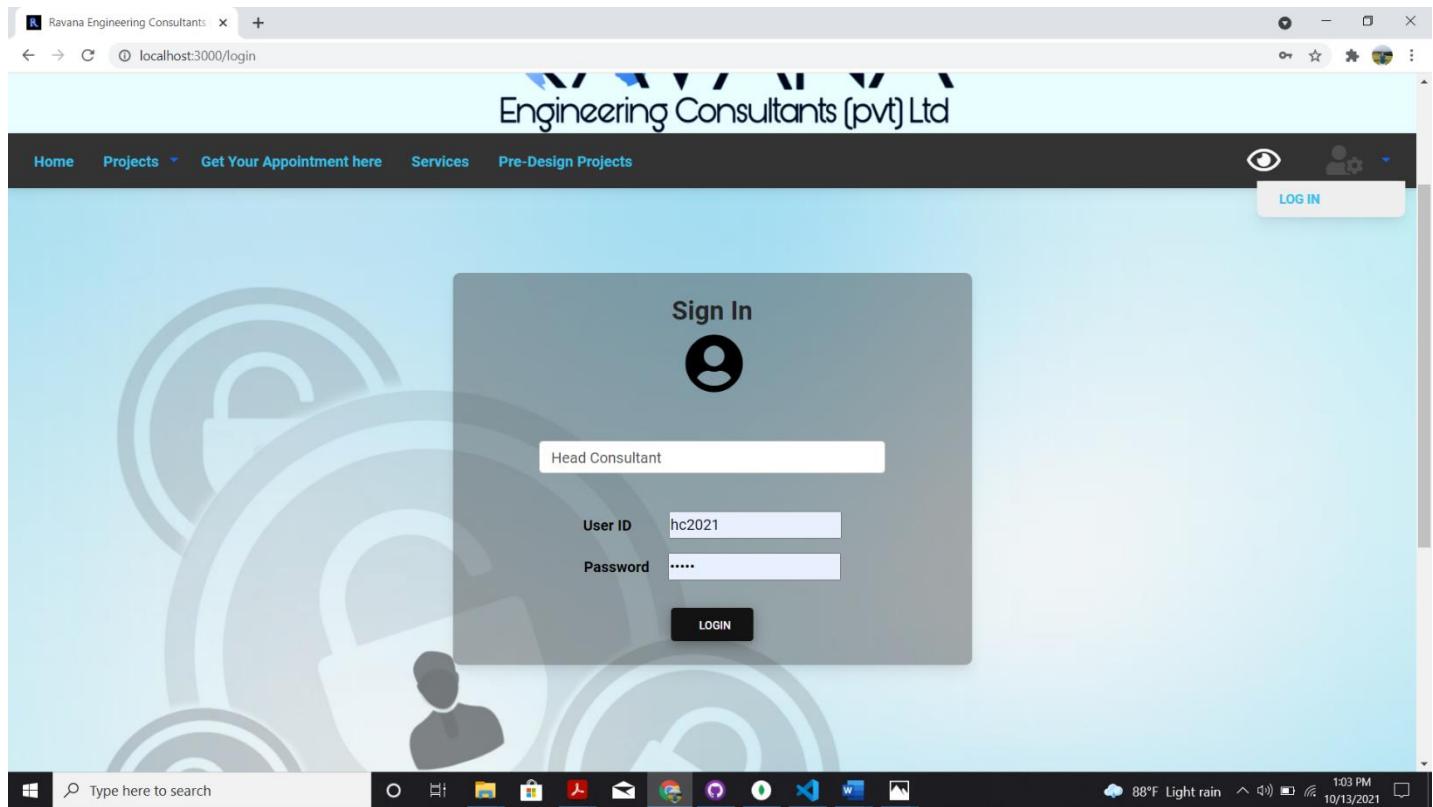
The screenshot shows a web browser window with the title bar "Ravana Engineering Consultants" and the address bar "localhost:3000/monthlyFinancialReport". The page header includes links for "Home", "Projects", "Get Your Appointment here", "Services", and "Pre-Design Projects". On the right side of the header are user icons for profile, eye, and settings. A dropdown menu labeled "-Select Project Category--" is visible. The main content area features a blue header with the text "All Projects Financial Details Report". Below this is a table with the following data:

#	Cash-Flow ID	Client/Company Name	Project Category	Total Project Budget	Advance Payment	Total Payble
1	Cash94112324589	NPM Company Limited	Hydro Power Project	95000.00	30000.00	65000.00
2	Cash9134102777	XTXY Company	Reforestation Project	220000.00	30000.00	190000.00
3	Cash94117887324	Sakya Company Limited	Solar Power Project	390000.00	300000.00	90000.00
4	Cash94116886007	Sanasa Company Limited	Carbon Project	750000.00	50000.00	700000.00
5	Cash855102777392	Bandisbul Company Limited	Reforestation Project	950000.00	300000.00	650000.00

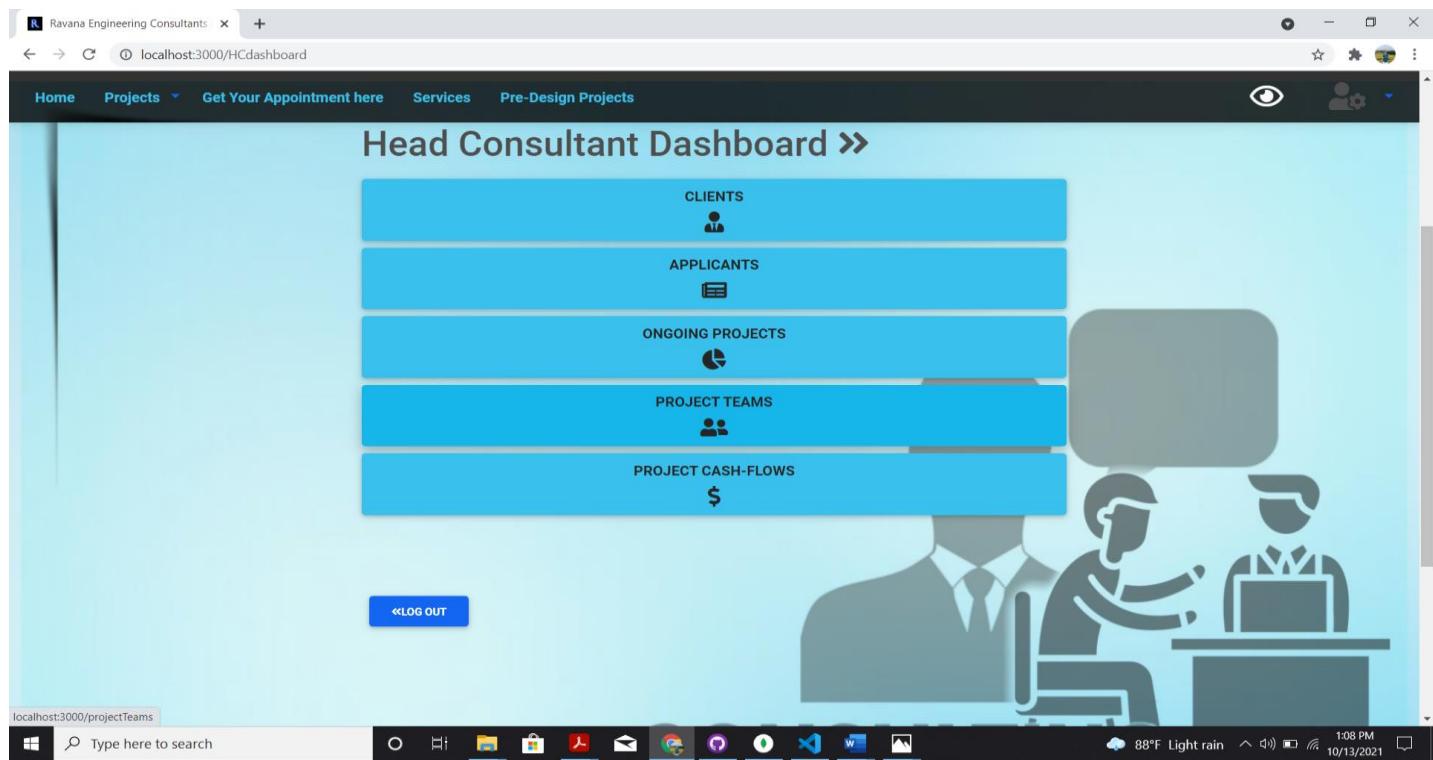
At the bottom of the page is a yellow button labeled "DOWNLOAD PDF" with a file icon. The Windows taskbar at the bottom of the screen shows various pinned apps and the system tray with the date and time.

Project Team Management

Interface – Head Consultant should login to system for operations in Project Team Management



Interface – Navigate to project teams in head consultant dashboard in Project Team Management



Interface – View all project teams and teams can be added edited and deleted in Project Team Management

The screenshot shows a web application interface titled "All Project Team Profiles". At the top, there is a navigation bar with links for Home, Projects, Get Your Appointment here, Services, Pre-Design Projects, and a search bar labeled "Search By Team ID / Type". Below the header, the main content area has two sections: "Team Details" and "Team Member Details".

Team Details:

Team ID	Team Type	Client/Company Name	Project category	Due date
Team_Holding Company_Solar Power Project	Office Work	Holding Company	Solar Power Project	2021-10-28
Team_Visual PVT Limited_Hydro Power Project	Field Work	Visual PVT Limited	Hydro Power Project	2021-11-03
Team_JK Holdings_Reforestation Project	Office Work	JK Holdings	Reforestation Project	2021-10-03
Team_Bandisbul Company Limited_Solar Power Project	Field Work	Bandisbul Company Limited	Solar Power Project	2022-01-12

Team Member Details:

Team ID	No Of Members	Member 01	Member 02	Member 03	Member 04	Action
Team_Holding Company_Solar Power Project	3	JC2000762389 Kalum	JC2000901389 Silva			<button>Edit</button> <button>Delete</button>
Team_Visual PVT Limited_Hydro Power Project	3	JC2000239045 Kasun	JC2000345687 Aruni	JC2000892345 Nuwan		<button>Edit</button> <button>Delete</button>
Team_JK Holdings_Reforestation Project	4	JC20000894567 Waruni	JC200985678 Kelpa	JC2003456729 Dilmi	JC2005678435 Maduri	<button>Edit</button> <button>Delete</button>
Team_Bandisbul Company Limited_Solar Power Project	4	rrfe	rr34r	3r34r	regfng	<button>Edit</button> <button>Delete</button>

At the bottom right of the main content area, there is a button labeled "CREATE A NEW TEAM PROFILE". The browser's taskbar at the bottom shows the Windows Start button, a search bar, and various pinned icons.

Interface – Create project teams in Project Team Management

The screenshot shows a web application interface titled "Create a Project Team Profile". The form is divided into several sections: "Assign A Project", "Team Details", and "Member Details".

Assign A Project:

- Client Company Name: Bandisbul Company Limited
- Project Category: Solar Power Project
- Date: 2021-10-23

Team Details:

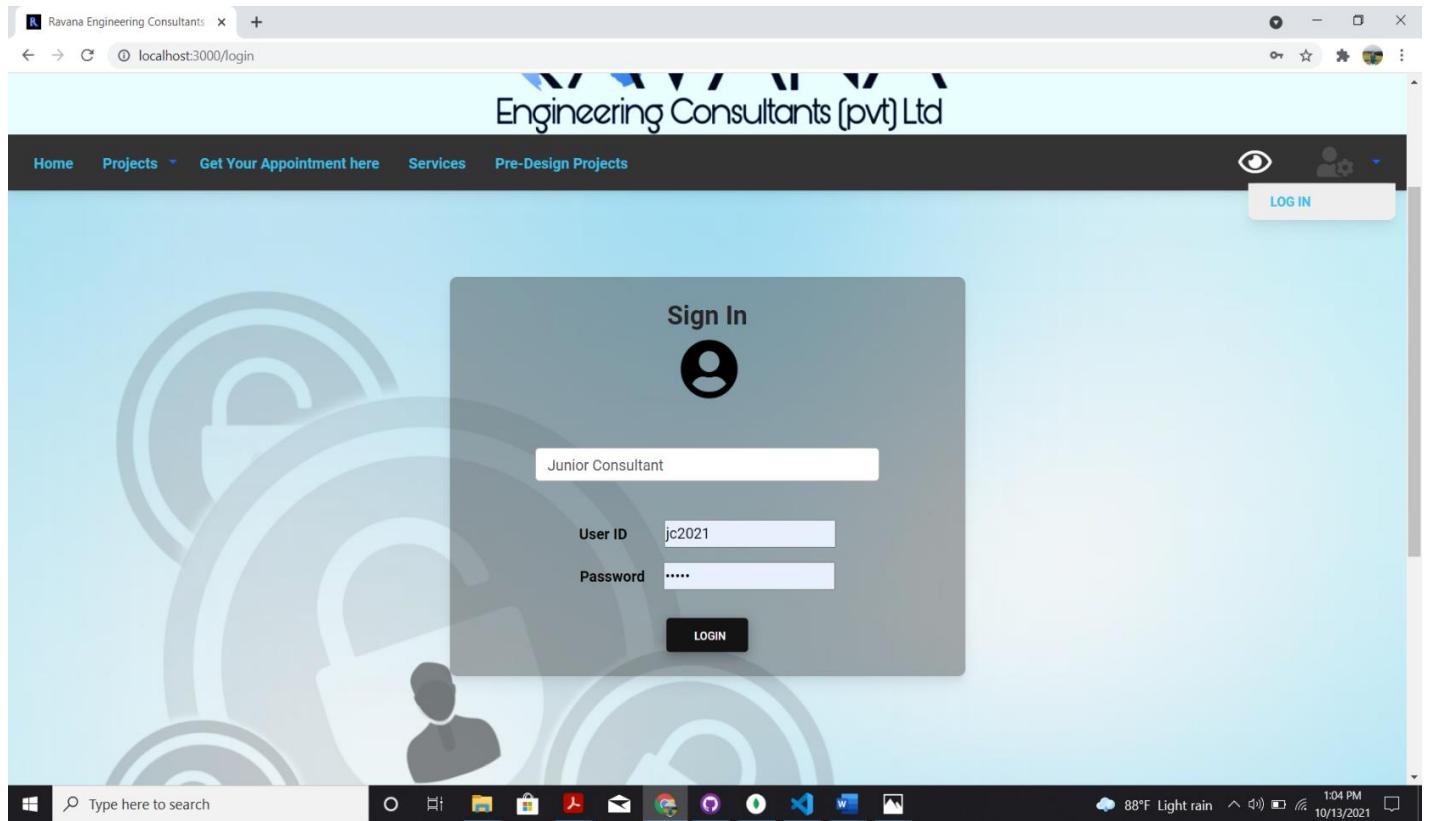
- Team Type: Field Work
- Assign A Team ID: Team_Bandisbul Company Limited_Solar Power Project

Member Details:

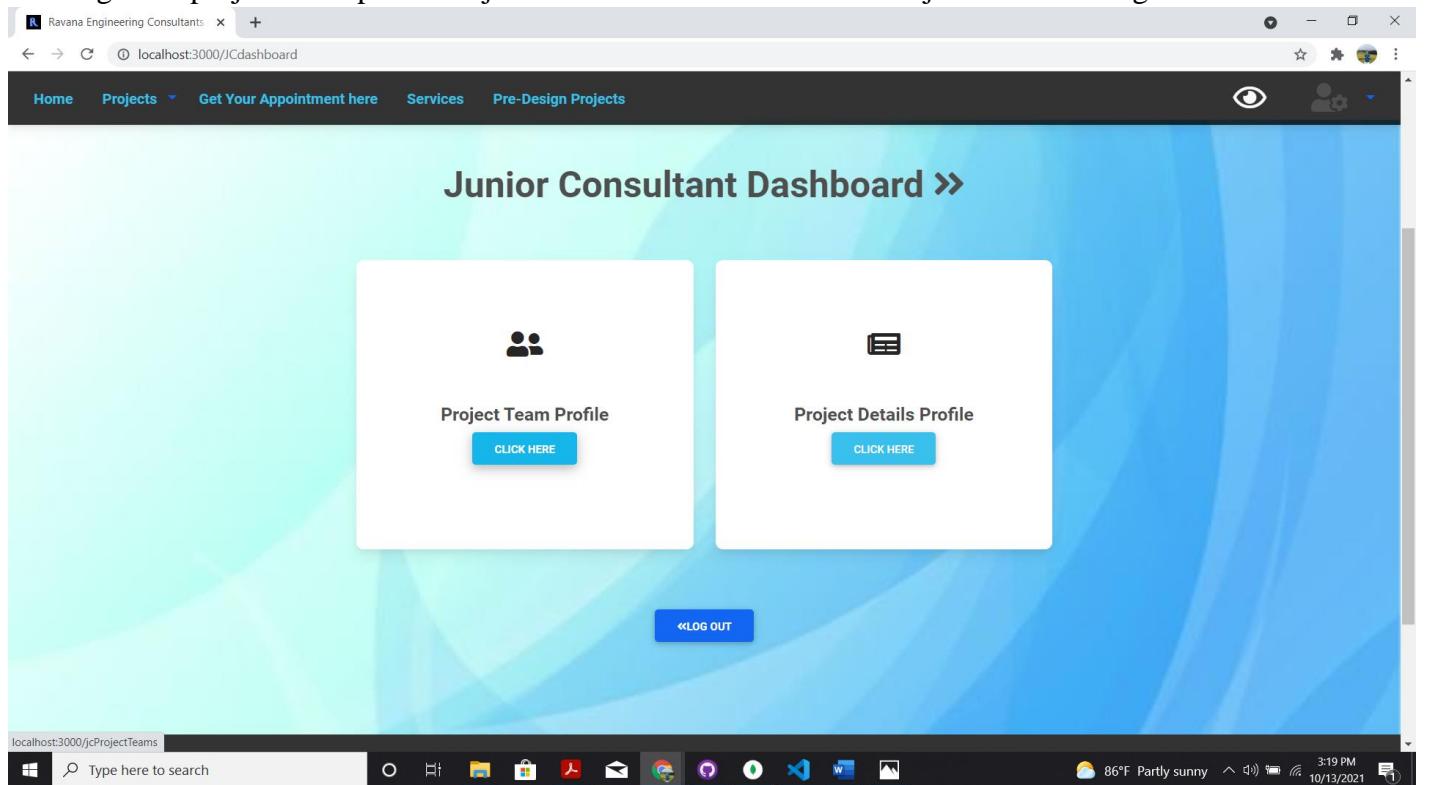
- No Of Members (3-4): 4
- Member 01: JC200887647 Pr/f/rf
- Member 02: JC2004842384 srtfa
- Member 03: JC200876475
- Member 04: JC200887654

At the bottom of the form, there is a green "CREATE TEAM PROFILE" button. The browser's taskbar at the bottom shows the Windows Start button, a search bar, and various pinned icons.

Interface – Junior Consultant should login to system for operations in Project Team Management



Interface – Navigate to project team profile in junior consultant dashboard in Project Team Management



Interface – View all project teams and team involvement can be marked in Project Team Management

Team Details

Team ID	Team Type	Client/Company Name	Project category	Due date
Team_Holding Company_Solar Power Project	Office Work	Holding Company	Solar Power Project	2021-10-28
Team_Visual PVT Limited_Hydro Power Project	Field Work	Visual PVT Limited	Hydro Power Project	2021-11-03
Team_JK Holdings_Refrestation Project	Office Work	JK Holdings	Refrestation Project	2021-10-03
Team_Bandisbul Company Limited_Solar Power Project	Field Work	Bandisbul Company Limited	Solar Power Project	2022-01-12

Team Member Details

Team ID	No Of Members	Member 01	Member 02	Member 03	Member 04	Team Involvement
Team_Holding Company_Solar Power Project	3	JC2000762389 Kalum	JC2000901389 Silva			IN INVOLVEMENT Marked ✓
Team_Visual PVT Limited_Hydro Power Project	3	JC2000239045 Kasun	JC2000345687 Aruni	JC2000892345 Nuwan		IN INVOLVEMENT Marked ✓
Team_JK Holdings_Refrestation Project	4	JC20000894567 Waruni	JC2000985678 Kalpa	JC2003456729 Dilini	JC2005678435 Maduri	IN INVOLVEMENT Not yet X
Team_Bandisbul Company Limited_Solar Power Project	4	rfe	r34r	934r	regfgr	IN INVOLVEMENT

Interface – mark project team involvement in Project Team Management

Mark Member Involvement

Team Details

- Team ID: Team_Holding Company_Solar Power Project
- Team Type: Office Work

Member Details

No Of Members	Member 01	Member Involvement
3	JC2000762389 Kalum	Good
	JC2000901389 Silva	Fair
	User ID Consultant's Name	Select A Performance
	User ID Consultant's Name	Select A Performance

Involvement: Marked

Interface – Generate team involvement report in Project Team Management

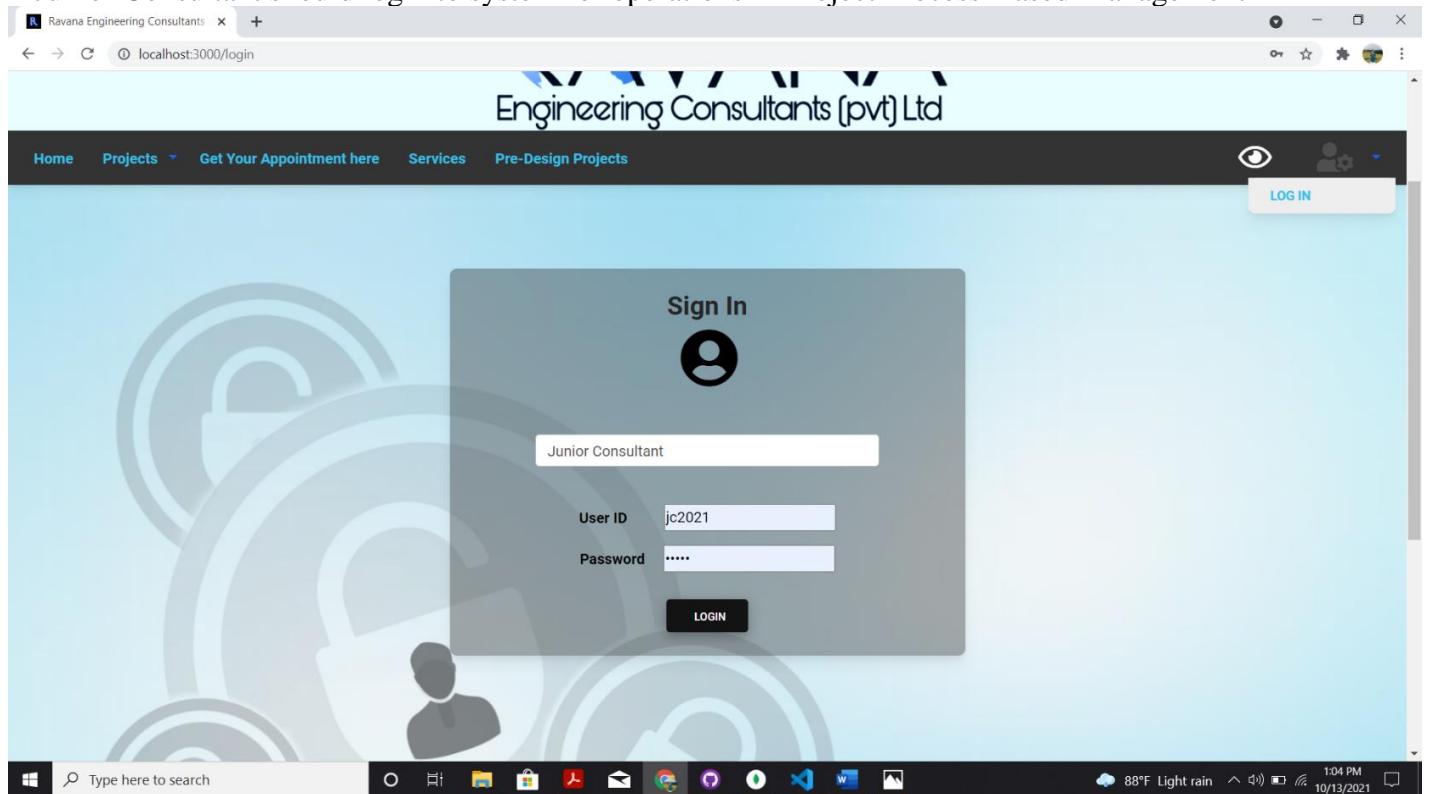
The screenshot shows a web browser window titled "Ravana Engineering Consultants" with the URL "localhost:3000/jcTeamProfiles/Team_Holding%20Company_Solar%20Power%20Project". The page has a header with links for Home, Projects, Get Your Appointment here, Services, and Pre-Design Projects. A blue banner at the top says "Team Involvement Report". Below it, a dark box displays the following information:

Team_Holding Company_Solar Power Project
Project Category :- Solar Power Project
Client/Company Name :- Holding Company
Due date :- 2021-10-28
Team Type :- Office Work
No. of Members :- 3
Member 01 :- JC2000762389 Kalum
Involvement :- Good
Member 02 :- JC2000901389 Silva
Involvement :- Fair
Member 03 :-
Involvement :- Select A Performance--
Member 04 :-
Involvement :-

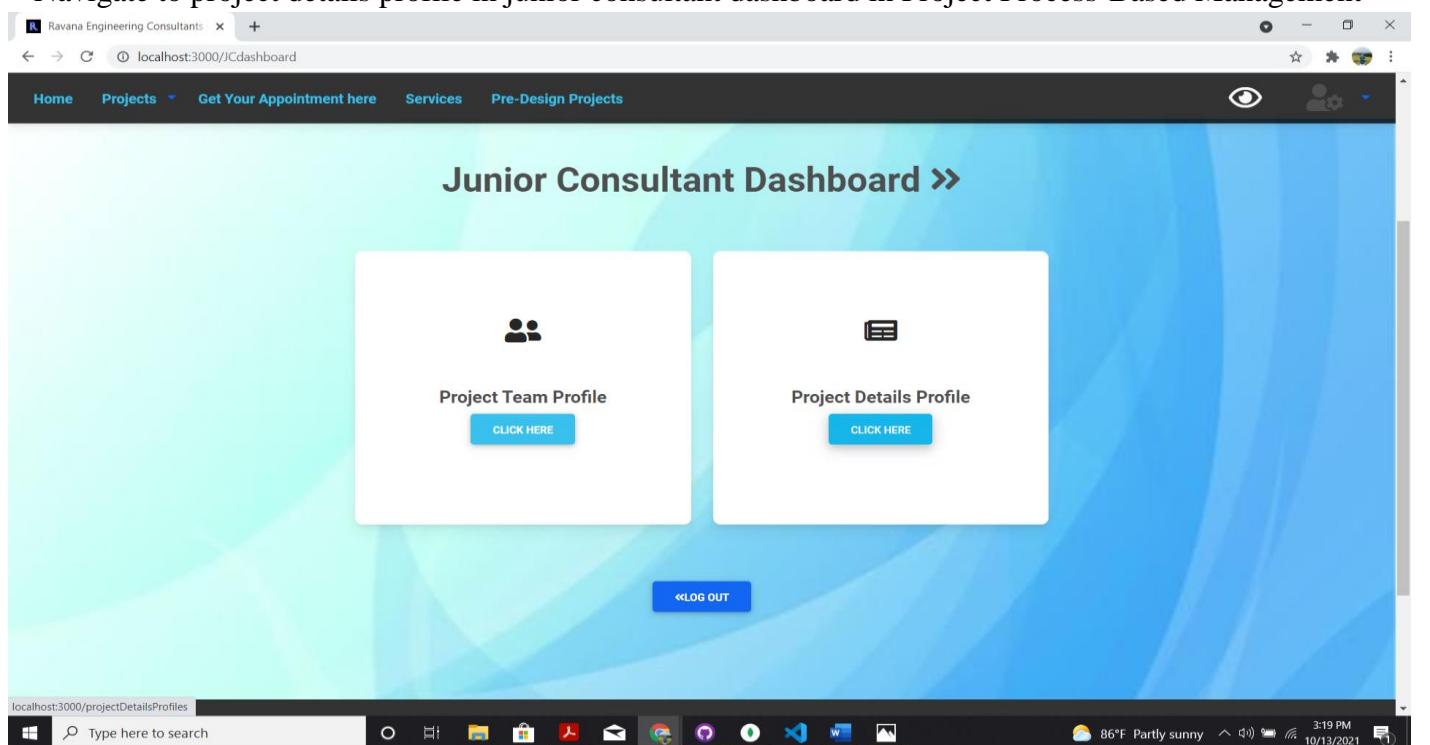
At the bottom right of the page is a yellow "DOWNLOAD PDF" button. The browser's taskbar at the bottom shows various pinned icons and the system tray indicates the date and time as 10/13/2021, 3:20 PM.

Project Process-Based Management

Interface – Junior Consultant should login to system for operations in Project Process-Based Management



Interface – Navigate to project details profile in junior consultant dashboard in Project Process-Based Management



Interface – View all project details profiles and profiles can be added edited and deleted in Project Process-Based Management

The screenshot shows a web application interface titled "All Project Details Profiles". At the top, there is a navigation bar with links for Home, Projects, Get Your Appointment here, Services, and Pre-Design Projects. A search bar labeled "Search By Project ID/Category" is also present. The main content area is divided into two sections: "Client Contact Information" and "Project Progress".

Client Contact Information:

Project ID	Client Name	Company Name	Client/Company Email	Client/Company Contact Number	Project Category	Due Date
pid778998800	Joana Wyle Peters		joana20@gmail.com	0778998800	Hydro Power Project	2021-10-01
pid778998877	Kylie Jenner		kylie20@gmail.com	0778998877	Reforestation Project	2021-11-20
pid1234567890		Brent pvt Ltd	brent10@gmail.com	1234567890	Solar Power Project	2021-10-30
pid1233456678	Levi Handler		levi002@gmail.com	1233456678	Hydro Power Project	2021-10-27
pid1212121212		Logan pvt Ltd	logar20@gmail.com	1212121212	Reforestation Project	2021-09-30

Project Progress:

Project ID	Task 01	Complete Rate	Task 02	Complete Rate	Task 03	Complete Rate	Total Completed Rate (%)	Action
pid778998800	Identify the project scope	25%	Work on a plan	25%	Work on the budget	25%	25%	<button>EDIT</button> <button>DELETE</button>
pid778998877	Set up a communication plan	50%	Create a Work Breakdown Structure	50%	Work on a plan	50%	50%	<button>EDIT</button> <button>DELETE</button>
pid1234567890	Come up with the vision	75%	Identify the stakeholders	50%	Prepare a risk management strategy	25%	50%	<button>EDIT</button> <button>DELETE</button>
pid1233456678	Initiating	100%	Executing	50%	Closing	25%	58.3333333333333%	<button>EDIT</button> <button>DELETE</button>
pid1212121212	Planning	100%	Controlling	25%	Closing	0%	41.66666666666664%	<button>EDIT</button> <button>DELETE</button>

At the bottom of the page, there are buttons for "ADD NEW PROJECT DETAILS PROFILE" and "GENERATE REPORT".

Interface – Create project details profiles in Project Process-Based Management

The screenshot shows a web application interface titled "Create A New Project Details Profile". At the top, there is a navigation bar with links for Home, Projects, Get Your Appointment here, Services, and Pre-Design Projects. A search bar labeled "Type here to search" is also present. The main content area is a form for creating a new project profile.

Client Contact Information:

Fields include:

- Name with initials:
- OR
- Contact Name:
- Business Company Limited:
- Client Company Email:
- Client Company Contact Number:
- Project Category:

Generate Project ID:

Fields include:

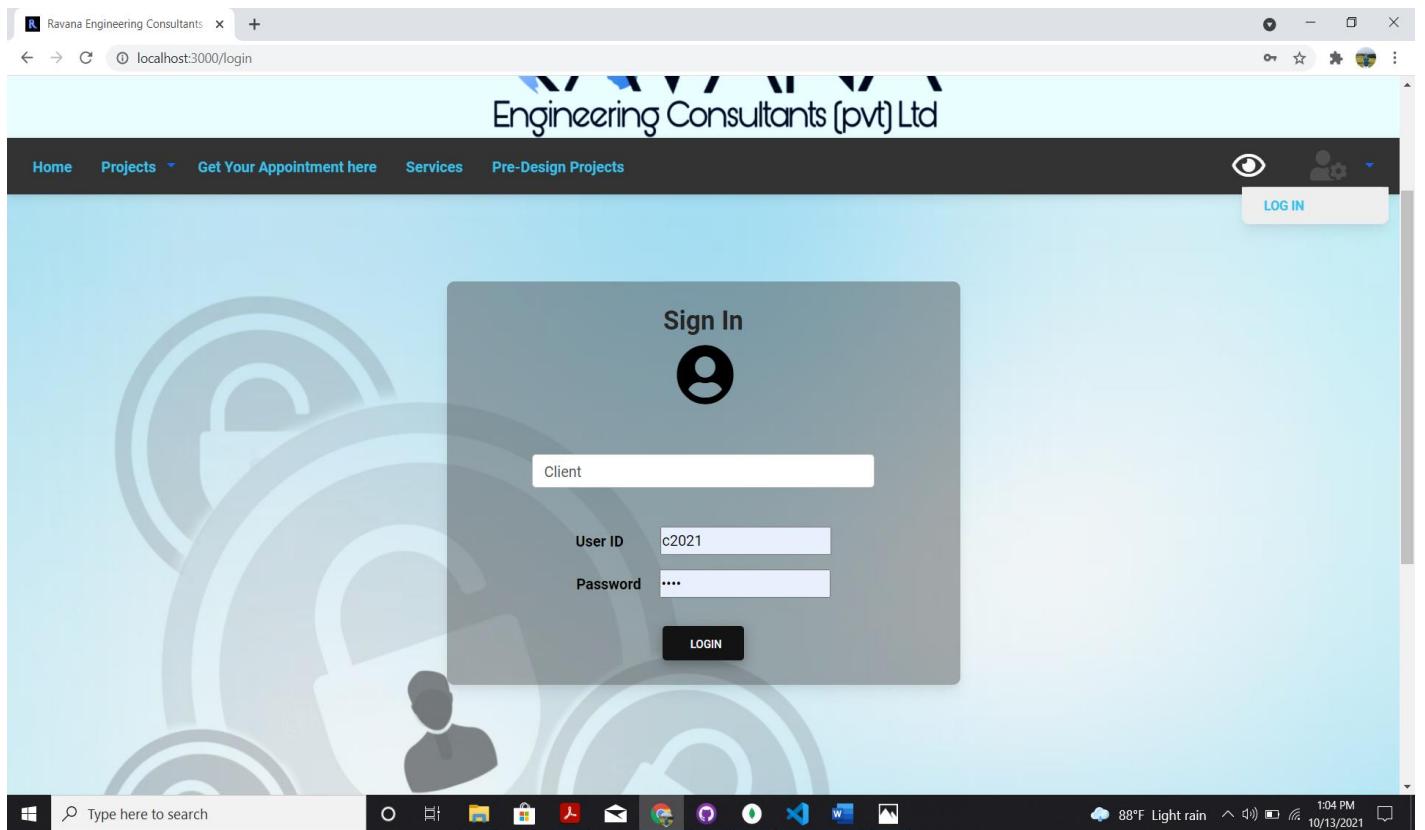
- Assign a Project ID: (Value: pid888122777392)
- Generate ID:

Project Progress:

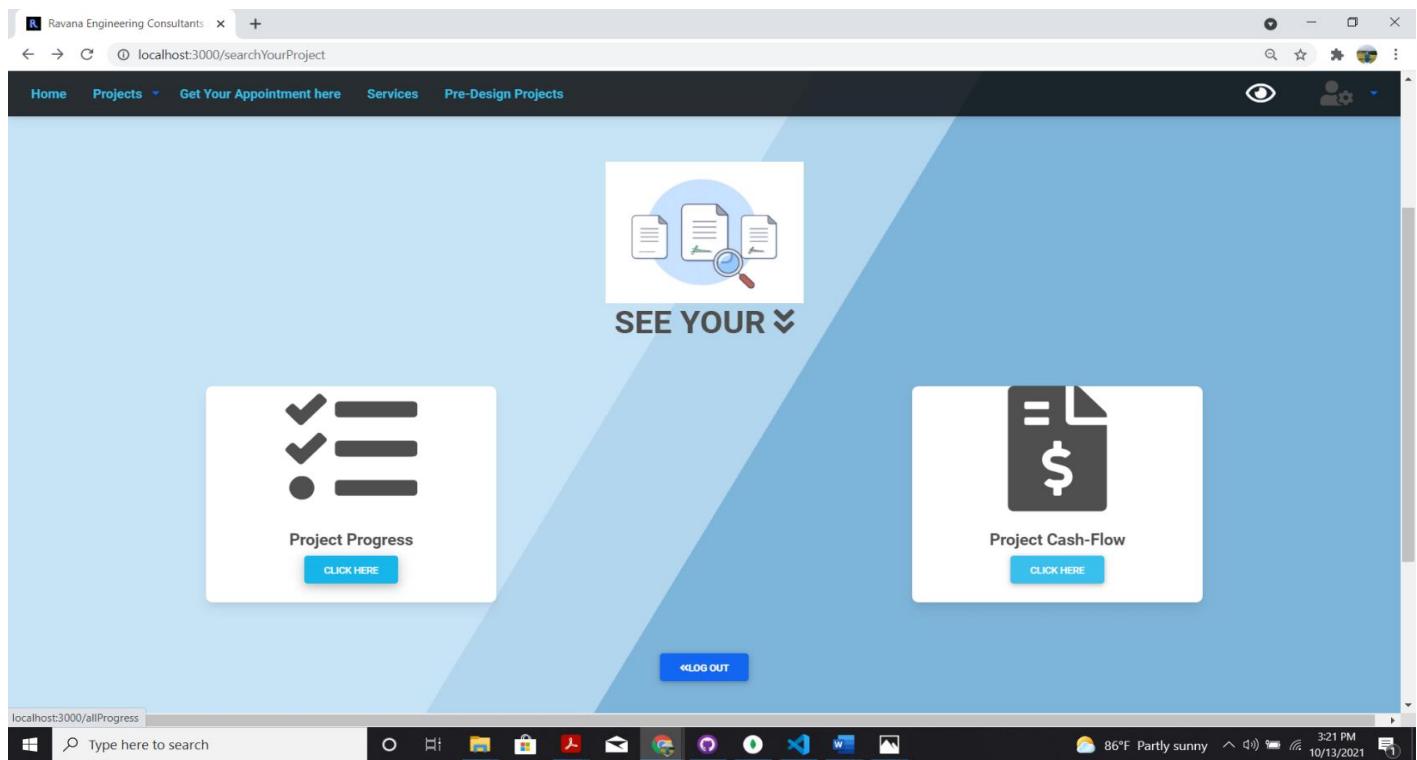
Fields include:

- Task 01: Task 01 Completed Rate: (Value: 5%)
- Task 02: Task 02 Completed Rate: (Value: 5%)
- Task 03: Task 03 Completed Rate: (Value: 5%)
- Total Completed Rate (%):
- CALCULATE TOTAL COMPLETED RATE:
- Due Date:
- CREATE:

Interface – Client should login to system for operations in Project Process-Based Management



Interface – Navigate to project progress to view project progress in Project Process-Based Management



Interface – Search project progress by company name or project id in Project Process-Based Management

The screenshot shows a web browser window with the address bar displaying "localhost:3000/allProgress". The page title is "Ravana Engineering Consultants". The main content area has a header "Progress of Projects" and a search bar labeled "Search By Project ID or Client/Company Name". Below the header, there is a list of five projects:

- 1 (Hydro Power Project) Joana Wyte Perera
- 2 (Reforestation Project) Kylie Jenner
- 3 (Solar Power Project) Brent pvt Ltd
- 4 (Hydro Power Project) Lexi Hensler
- 5 (Reforestation Project) Logan pvt Ltd

The browser's taskbar at the bottom shows various pinned icons and the system tray indicates it's 4:28 PM on 10/13/2021.

Interface – view project details profile in Project Process-Based Management

The screenshot shows a web browser window with the address bar displaying "localhost:3000/viewProjectProgress/pid778898800". The page title is "Ravana Engineering Consultants". The main content area displays a project profile for "pid778898800". The profile includes:

Project Progress

Hydro Power Project
Joana Wyte Perera
joana20@gmail.com
0778898800
2021-10-31

Project Progress

Task	Description	Complete Rate
Task 1	Identify the project scope	25%
Task 2	Work on a plan	25%
Task 3	Work on the budget	25%

Total Progress (%) 25%

The browser's taskbar at the bottom shows various pinned icons and the system tray indicates it's 4:29 PM on 10/13/2021.

Interface – Generate all projects progress report in Project Process-Based Management

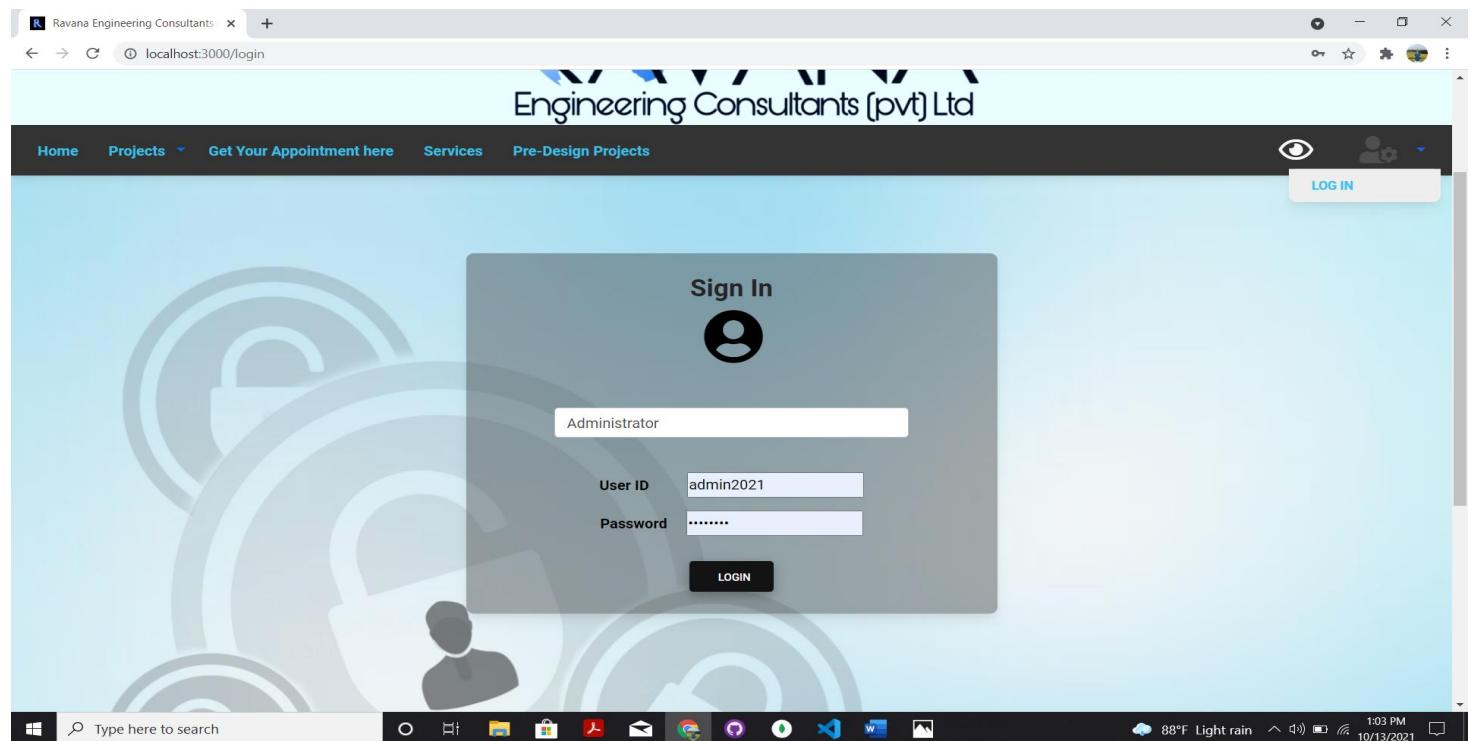
The screenshot shows a web application interface for managing projects. At the top, there is a navigation bar with links for Home, Projects, Get Your Appointment here, Services, and Pre-Design Projects. A dropdown menu labeled "Select Project Category" is visible. The main content area features a blue header with the text "All Projects Progress Report". Below this is a table with the following data:

#	Project ID	Project Category	Client/Company Name	Total Completed Rate (%)	Due Date
1	pid778898800	Hydro Power Project	Joana Wyte Perera	25%	2021-10-31
2	pid778898877	Reforestation Project	Kylie Jenner	50%	2021-11-26
3	pid1234567890	Solar Power Project	Brent pvt Ltd	50%	2021-10-30
4	pid1223456678	Hydro Power Project	Lexi Hensler	58.33333333333336%	2021-10-27
5	pid1212121212	Reforestation Project	Logan pvt Ltd	41.66666666666666%	2021-10-29

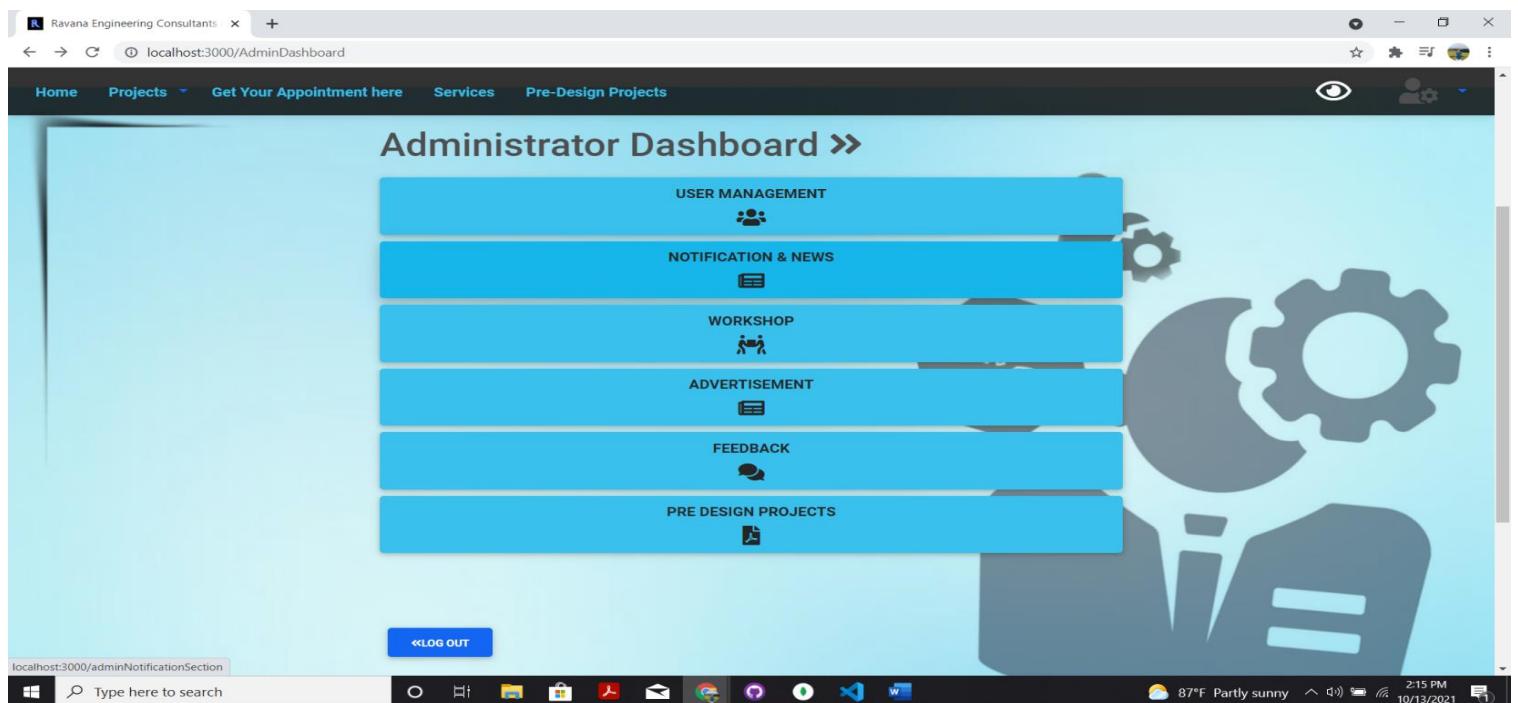
At the bottom right of the table is a yellow "DOWNLOAD PDF" button with a file icon. The browser's address bar shows "localhost:3000/monthlyProgressReport". The operating system taskbar at the bottom shows the date as 10/13/2021 and the time as 4:27 PM.

Notification & Feedback Management

Notification Management



Interface – Administrator should login to system for operations in Notification Management



Interface – Navigate to notification & news in admin dashboard in Notification Management

Ravana Engineering Consultants x +

localhost:3000/adminNotificationSection

Home Projects Get Your Appointment here Services Pre-Design Projects

Search by topic

News & Notification

#	Topic	Description	Date	Action
N001	Energising the with hydropower	According to a report by management consulting firm McKinsey, the world's global power consumption is set to double by 2050. As electrification rates increase in tandem with new developments and a growing population, the need for power will grow exponentially in the decades ahead. But meeting the increasing energy demand is more than just providing additional power. How we produce and consume energy will also shape the future of our planet. Now more than ever, there is an important call to reduce our carbon impact in order to mitigate climate change. With this new green vision, the world is looking towards sustainable, renewable energy to fulfil its needs, and Sarawak Energy is in a prime position to meet this need at the regional level with hydropower.	2021-09-07	<button style="color: orange;">EDIT</button> <button style="color: red;">DELETE</button>
N002	Generating more power from renewable energy resources	The Government of Sri Lanka (GoSL) has announced an ambitious target of achieving up to 70 percent energy generation from Renewable Energy (RE) sources, according to a recently issued gazette. While this is a timely and a very important decision by the GoSL, many may wonder whether it is achievable. Some may even have doubts regarding our capability as a developing nation where funding for all new development should come from outside in the form of aid or loans.	2021-09-23	<button style="color: orange;">EDIT</button> <button style="color: red;">DELETE</button>
N003	Tata Power Arm Gets Letter of Award for 330 MW Solar Project	Tata Power NSE 6.41 % on Thursday said its arm TP Surya has received a letter of award from Rewa Ultra Mega Solar Limited for setting up of 330 MW solar project in Madhya Pradesh. TP Surya Limited (TPSL), a wholly-owned subsidiary of Tata Power, has received a 'Letter of Award' (LoA) from Rewa Ultra Mega Solar Limited (RUMSL) to build 330 MW (Unit-1:160 MW + Unit-2:170 MW) of solar project in Neemuch Solar Park of Madhya Pradesh, a company...	2021-10-12	<button style="color: orange;">EDIT</button> <button style="color: red;">DELETE</button>
N004	Tata Power Arm Gets Letter of Award for 330 MW Solar Project	Tata Power NSE 6.41 % on Thursday said its arm TP Surya has received a letter of award from Rewa Ultra Mega Solar Limited for setting up of 330 MW solar project in Madhya Pradesh. TP Surya Limited (TPSL), a wholly-owned subsidiary of Tata Power, has received a 'Letter of Award' (LoA) from Rewa Ultra Mega Solar Limited (RUMSL) to build 330 MW (Unit-1:160 MW + Unit-2:170 MW) of solar project in Neemuch Solar Park of Madhya Pradesh, a company...	2021-10-10	<button style="color: orange;">EDIT</button> <button style="color: red;">DELETE</button>

[+ ADD NEW NOTICES](#)

Windows Type here to search 85°F Partly sunny 4:42 PM 10/13/2021

Interface – View all notification and notifications can be added edited and deleted in Notification Management

Ravana Engineering Consultants x +

localhost:3000/createNotice

Home Projects Get Your Appointment here Services Pre-Design Projects

Add New Notice

Topic
Tata Power Arm Gets Letter of Award for 330 MW Solar Project

Description
Tata Power NSE 6.41 % on Thursday said its arm TP Surya has received a letter of award from Rewa Ultra Mega Solar Limited for setting up of 330 MW solar project in Madhya Pradesh. TP Surya Limited (TPSL), a wholly-owned subsidiary of Tata Power, has received a 'Letter of Award' (LoA) from Rewa Ultra Mega Solar Limited (RUMSL) to build 330 MW (Unit-1:160 MW + Unit-2:170 MW) of solar project in Neemuch Solar Park of Madhya Pradesh, a company...

Date
10/12/2021

[ADD NOTICE](#) [DEMO](#)

Windows Type here to search 85°F Partly sunny 4:42 PM 10/13/2021

Interface – Create notices in Notification Management

Ravana Engineering Consultants x +

localhost:3000/clientNotificationSection

Home Projects Get Your Appointment here Services Pre-Design Projects

Search by topic

News & Notification

1	Energising the with hydropower	According to a report by management consulting firm McKinsey, the world's global power consumption is set to double by 2050. As electrification rates increase in tandem with new developments and a growing population, the need for power will grow exponentially in the decades ahead. But meeting the increasing energy demand is more than just providing additional power. How we produce and consume energy will also shape the future of our planet. Now more than ever, there is an important call to reduce our carbon impact in order to mitigate climate change. With this new green vision, the world is looking towards sustainable, renewable energy to fulfil its needs, and Sarawak Energy is in a prime position to meet this need at the regional level with hydropower.	2021-09-07
2	Generating more power from renewable energy resources	The Government of Sri Lanka (GoSL) has announced an ambitious target of achieving up to 70 percent energy generation from Renewable Energy (RE) sources, according to a recently issued gazette. While this is a timely and a very important decision by the GoSL, many may wonder whether it is achievable. Some may even have doubts regarding our capability as a developing nation where funding for all new development should come from outside in the form of aid or loans.	2021-09-23
3	Tata Power Arm Gets Letter of Award for 330 MW Solar Project	Tata Power NSE 6.41 % on Thursday said its arm TP Surya has received a letter of award from Rewa Ultra Mega Solar Limited for setting up of 330 MW solar project in Madhya Pradesh. TP Surya Limited (TPSL), a wholly-owned subsidiary of Tata Power, has received a 'Letter of Award' (LoA) from Rewa Ultra Mega Solar Limited (RUMSL) to build 330 MW (Unit-1:160 MW + Unit-2:170 MW) of solar project in Neemuch Solar Park of Madhya Pradesh, a company ...	2021-10-12
4	Tata Power Arm Gets Letter of Award for 330 MW Solar Project	Tata Power NSE 6.41 % on Thursday said its arm TP Surya has received a letter of award from Rewa Ultra Mega Solar Limited for setting up of 330 MW solar project in Madhya Pradesh. TP Surya Limited (TPSL), a wholly-owned subsidiary of Tata Power, has received a 'Letter of Award' (LoA) from Rewa Ultra Mega Solar Limited (RUMSL) to build 330 MW (Unit-1:160 MW + Unit-2:170 MW) of solar project in Neemuch Solar Park of Madhya Pradesh, a company ...	2021-10-10



Interface – View notifications & news by clients/guests in Notification Management

Feedback Management

Interface – View reviews by clients/guests in Feedback Management

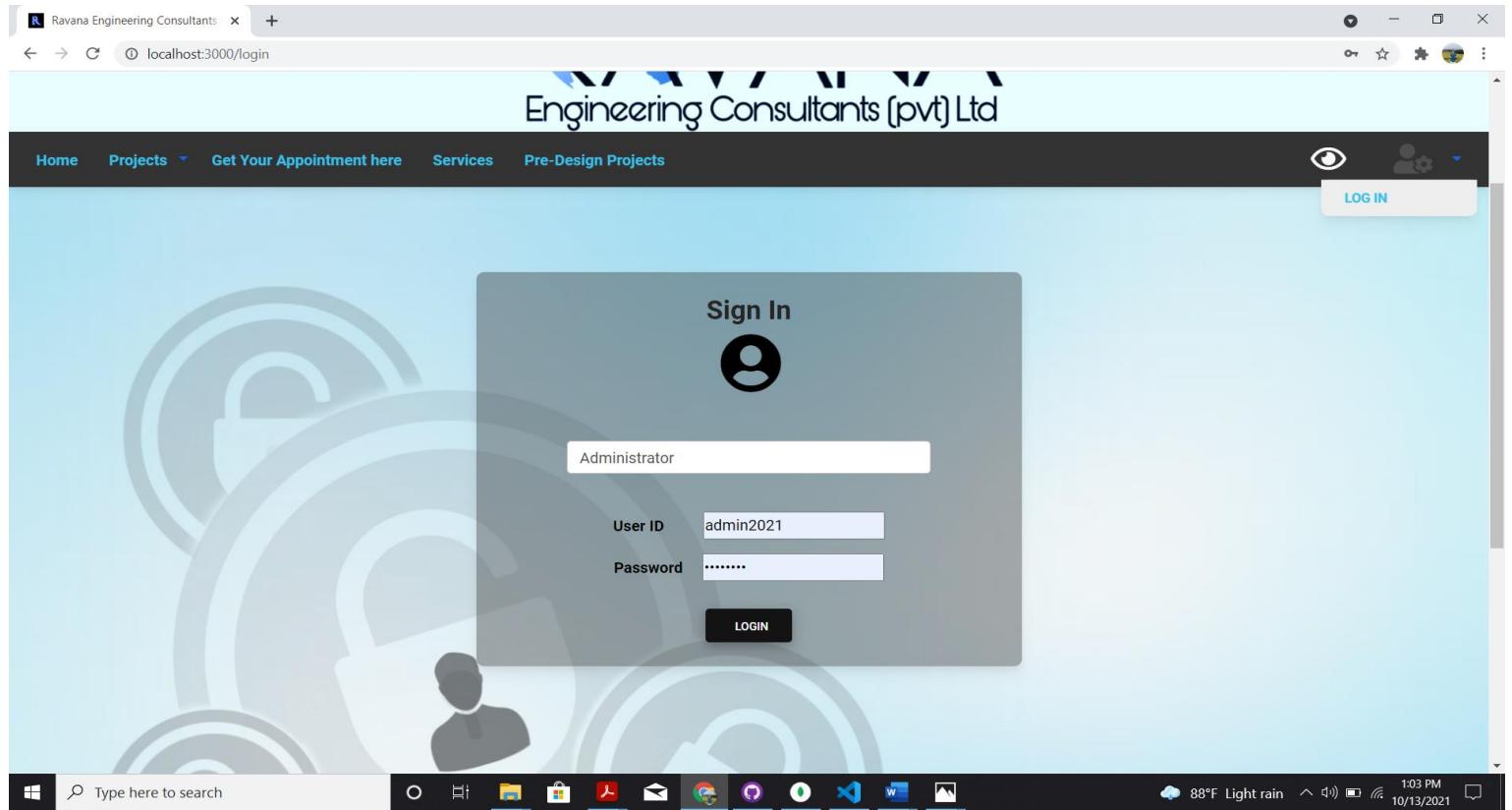
The screenshot shows a web browser window titled "Ravana Engineering Consultants" at "localhost:3000/clientReviews". The page has a header with navigation links: Home, Projects, Get Your Appointment here, Services, and Pre-Design Projects. Below the header, the main content area features a large blue title "Client Reviews". Underneath the title is a table with 9 rows of data, each representing a client review. The columns are labeled "#", "Date", "Rate", "Email", and "Feedback".

#	Date	Rate	Email	Feedback
F001	2021-09-19	5	gangamiga00@gmail.com	I like it
F002	2021-09-14	5	thepuli10@gmail.com	Good
F003	2021-09-18	4	athmaja@gmail.com	Nice project
F004	2021-09-09	4	piyumikaalmeda@gmail.com	good
F005	2021-09-02	4	sadeepa99@gmail.com	Great Service
F006	2021-10-05	5	pramodapiyumali@gmail.com	nice!
F007	2021-10-23	4	piyumaligunasekara99@gmail.com	wow
F008	2021-10-18	4	dushyanthemehabuduge@gmail.com	Thanks for you the cooperation, Great Work!!!
F009	2021-10-12	5	gangaminithmaja21@gmail.com	Thanks for you the cooperation, Great Work!!!

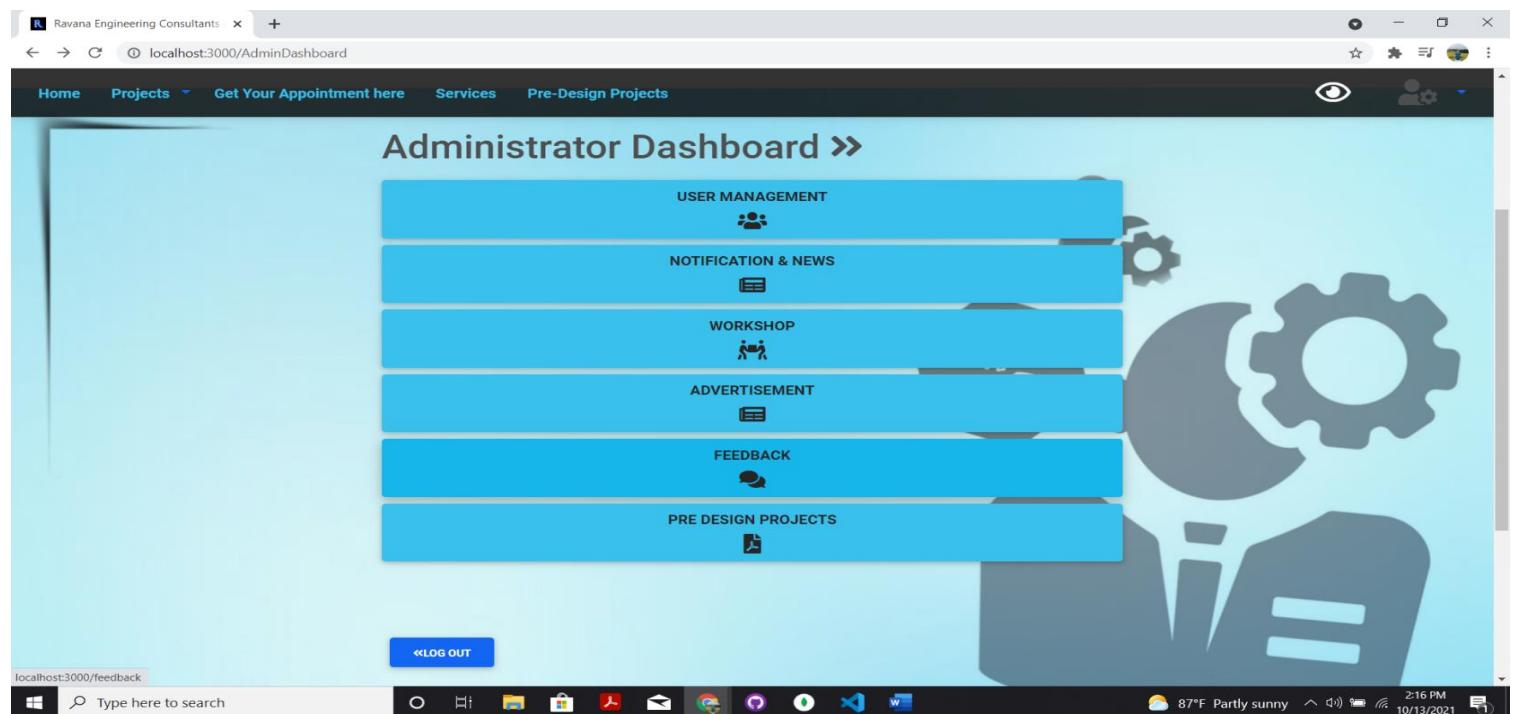
Interface – Give feedbacks by clients/guests in Feedback Management

The screenshot shows a web browser window titled "Ravana Engineering Consultants" at "localhost:3000/giveFeedback". The page has a header with navigation links: Home, Projects, Get Your Appointment here, Services, and Pre-Design Projects. The main content area features a large, stylized text "Give Us Your Feedback" in yellow and blue. Below this is a form for submitting a review. The form includes fields for "Date" (set to "10/12/2021"), "Rate Us" (5 stars), "Email" ("gangaminithmaja21@gmail.com"), and "Feedback" ("Thanks for you the cooperation, Great Work!!"). At the bottom of the form are two buttons: "SEND" and "SEE ALL REVIEWS" (blue) and "DEMO" (orange).

Interface – Administrator should login to system for operations in Feedback Management



Interface – Navigate to feedback in admin dashboard in Feedback Management



Interface-generate report

The screenshot shows a web browser window with the title "Ravana Engineering Consultants" and the URL "localhost:3000/feedbackReport". The page displays a "Client Reviews Report" section with a table of feedback data. A "DOWNLOAD PDF" button is visible at the bottom. The taskbar at the bottom of the screen shows various application icons.

Client Reviews Report

#	Date	Rate	Email	Feedback
F001	2021-09-19	5	gangamiga00@gmail.com	I like it
F002	2021-09-14	5	thepuli10@gmail.com	Good
F003	2021-09-18	4	athmaja@gmail.com	Nice project
F004	2021-09-09	4	piyumikaalmeda@gmail.com	good
F005	2021-09-02	4	saddeepa99@gmail.com	Great Service
F006	2021-10-05	5	pramodapiyumi@gmail.com	nice!
F007	2021-10-23	4	piyumaligunasekara99@gmail.com	wow
F008	2021-10-18	4	dushyanthamahabaduge@gmail.com	Thanks for you the cooparation, Great Work!!!
F009	2021-10-12	5	gangaminiathmaja21@gmail.com	Thanks for you the cooparation, Great Work!!!

DOWNLOAD PDF

Workshop Management

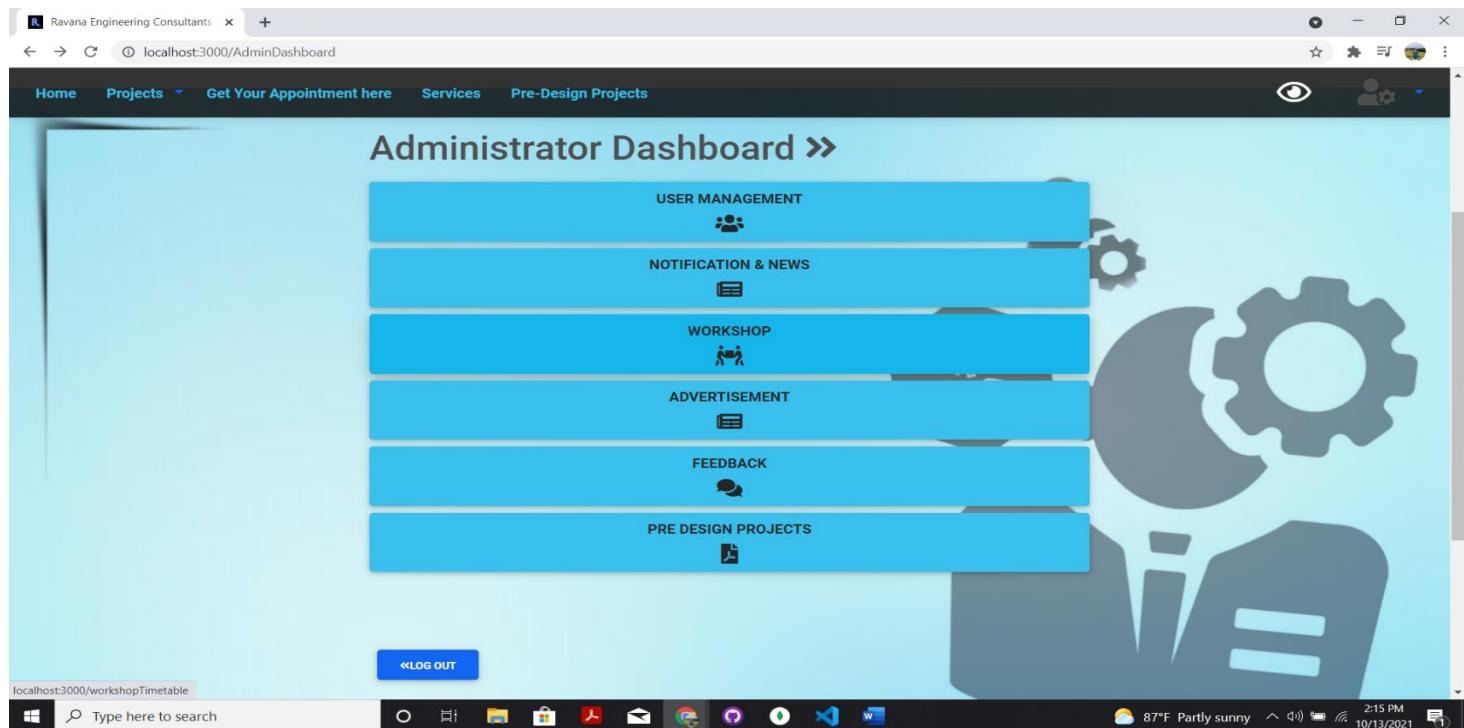
Interface – Register to workshops by clients/guests in Workshop Management

A screenshot of a web browser showing a registration form for a workshop. The title bar says "Ravana Engineering Consultants" and the URL is "localhost:3000/workshopAdvertisements". The page has a dark header with navigation links: Home, Projects, Get Your Appointment here, Services, Pre-Design Projects, and a user icon. Below the header is a large blue button with a pencil icon and the text "Register now!". A central modal window contains fields for Name (Charitha Dissanayake), Email (charithadissanayake@gmail.com), and ContactNo (0702354628). At the bottom of the modal are a blue "REGISTER" button and an orange "DEMO" button. The background features a large blue diagonal shape.

Interface – Administrator should login to system for operations in Workshop Management

A screenshot of a web browser showing a sign-in form for an administrator. The title bar says "Ravana Engineering Consultants" and the URL is "localhost:3000/login". The page has a dark header with navigation links: Home, Projects, Get Your Appointment here, Services, Pre-Design Projects, and a user icon. To the right of the user icon is a "LOG IN" button. A central modal window is titled "Sign In" and features a user icon. It has input fields for "Administrator" (placeholder text), "User ID" (admin2021), and "Password" (*****). At the bottom of the modal is a black "LOGIN" button. The background features a large watermark-like graphic of a person's head and shoulders.

Interface – Navigate to workshop in admin dashboard in Workshop Management



Ravana Engineering Consultants localhost:3000/AdminDashboard

Home Projects Get Your Appointment here Services Pre-Design Projects

Administrator Dashboard >>

USER MANAGEMENT

NOTIFICATION & NEWS

WORKSHOP

ADVERTISEMENT

FEEDBACK

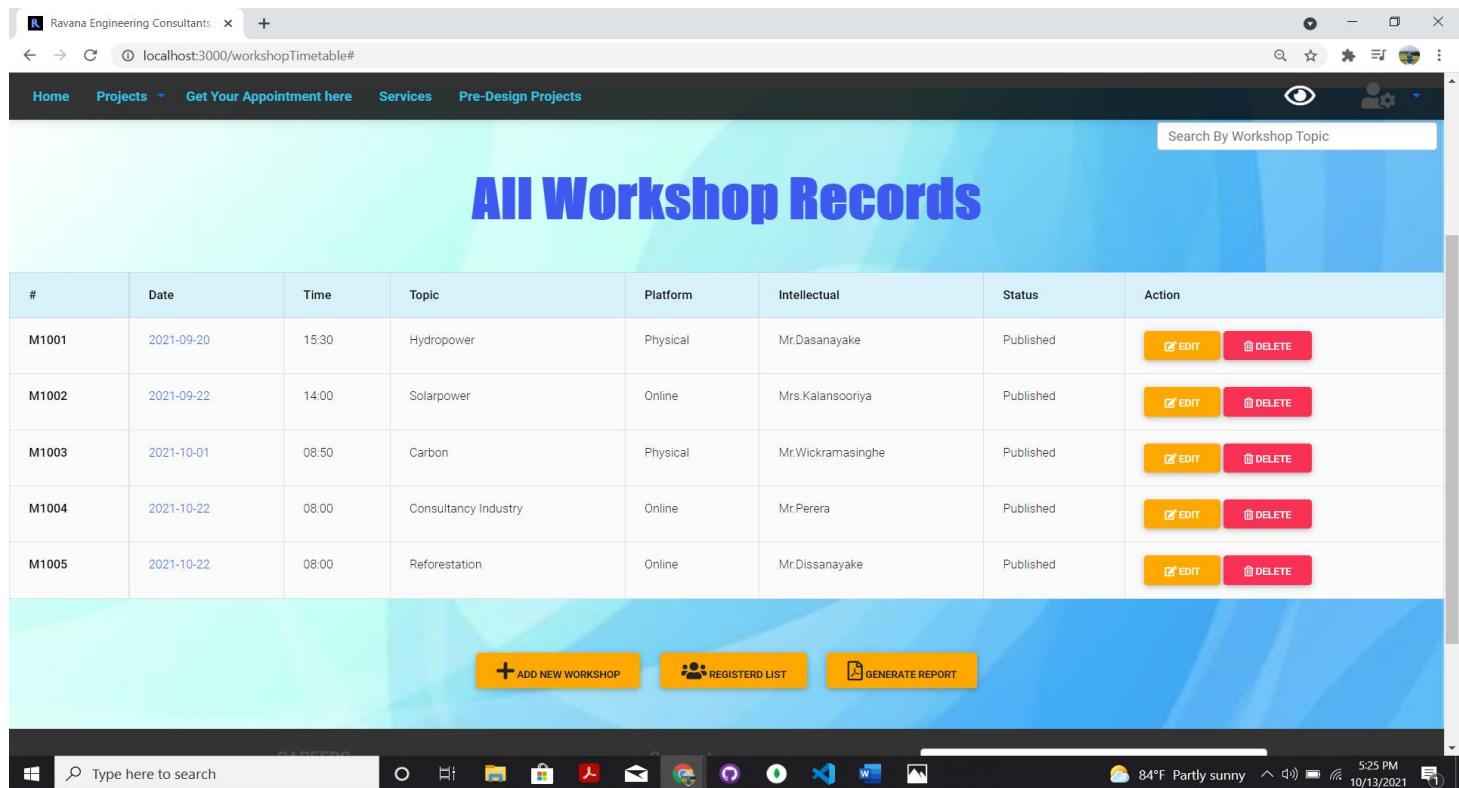
PRE DESIGN PROJECTS

LOG OUT

localhost:3000/workshopTimetable

Type here to search 87°F Partly sunny 2:15 PM 10/13/2021

Interface – View all workshop records and records can be added edited and deleted in Workshop Management



Ravana Engineering Consultants localhost:3000/workshopTimetable#

Home Projects Get Your Appointment here Services Pre-Design Projects

Search By Workshop Topic

All Workshop Records

#	Date	Time	Topic	Platform	Intellectual	Status	Action
M1001	2021-09-20	15:30	Hydropower	Physical	Mr.Dasanayake	Published	<button>EDIT</button> <button>DELETE</button>
M1002	2021-09-22	14:00	Solarpower	Online	Mrs.Kalansooriya	Published	<button>EDIT</button> <button>DELETE</button>
M1003	2021-10-01	08:50	Carbon	Physical	Mr.Wickramasinghe	Published	<button>EDIT</button> <button>DELETE</button>
M1004	2021-10-22	08:00	Consultancy Industry	Online	Mr.Perera	Published	<button>EDIT</button> <button>DELETE</button>
M1005	2021-10-22	08:00	Reforestation	Online	Mr.Dissanayake	Published	<button>EDIT</button> <button>DELETE</button>

+ ADD NEW WORKSHOP REGISTERD LIST GENERATE REPORT

Type here to search 84°F Partly sunny 5:25 PM 10/13/2021

Interface – Create workshop records in Workshop Management

Create New Workshop Timetable

Date: 10/22/2021

Time: 08:00 AM

Topic: Consultancy Industry

Platform: Online

Intellectual: Mr.Jananayake

Status: Published

ADD NEW WORKSHOP

DEMO

Interface – View all registered list in Workshop Management

All Registered List

#	Name	Email	ContactNo
1	Anjalee hansika	anjaleehansikakapukotuwa@gmail.com	0715124988
2	A.M.Pramoda Piyumali Gunasekara	pramodapiyumi@gmail.com	0754268231
3	Charitha Dissanayake	charithadissanayake@gmail.com	0702354628
4	Anjalee	anjaleehansikakapukotuwa@gmail.com	0715168452
5	Kanchana	kanchana@gmail.com	0774582355
6	Charitha Dissanayake	charithadissanayake@gmail.com	0702354628

Interface – Generate workshop report in Workshop Management

The screenshot shows a web browser window titled "Ravana Engineering Consultants" with the URL "localhost:3000/monthlyWorkshopReport". The page header includes navigation links for "Home", "Projects", "Get Your Appointment here", "Services", and "Pre-Design Projects". A search bar at the top right says "Search By Workshop Topic". The main content area features a blue header with the text "Monthly Workshop Report". Below it is a table with the following data:

#	Date	Time	Topic	Platform	Intellectual
M1001	2021-09-20	15:30	Hydropower	Physical	Mr.Dasanayake
M1002	2021-09-22	14:00	Solarpower	Online	Mrs.Kalansooriya
M1003	2021-10-01	08:50	Carbon	Physical	Mr.Wickramasinghe
M1004	2021-10-22	08:00	Consultancy Industry	Online	Mr.Perera
M1005	2021-10-22	08:00	Reforestation	Online	Mr.Dissanayake

Below the table is a yellow button labeled "DOWNLOAD PDF" with a file icon. The browser's taskbar at the bottom shows various pinned icons and the system tray indicates the date and time as 10/13/2021, 5:26 PM.

Pre-Designed Project Sales Management

Interface – View designed project reports by clients/guests in Pre-Designed Project Sales Management

The screenshot shows a web browser window titled 'Ravana Engineering Consultants' at 'localhost:3000/designedProjects'. The main heading is 'Designed Project Reports'. Below it are four project cards:

- Reforestation Project** (PDP1250) with a 'REQUEST' button.
- Hydro Power Project** (PDP1445) with a 'REQUEST' button.
- Solar Power Project** (PDP1574) with a 'REQUEST' button.
- Carbon Project** (PDP1173) with a 'REQUEST' button.

A 'SEE MORE' button is located at the bottom center of the card area. The browser's address bar shows the URL 'localhost:3000/designedProjects'. The taskbar at the bottom indicates the system is connecting, the date is 10/13/2021, and the time is 5:37 PM.

Interface – Request designed project reports by clients/guests in Pre-Designed Project Sales Management

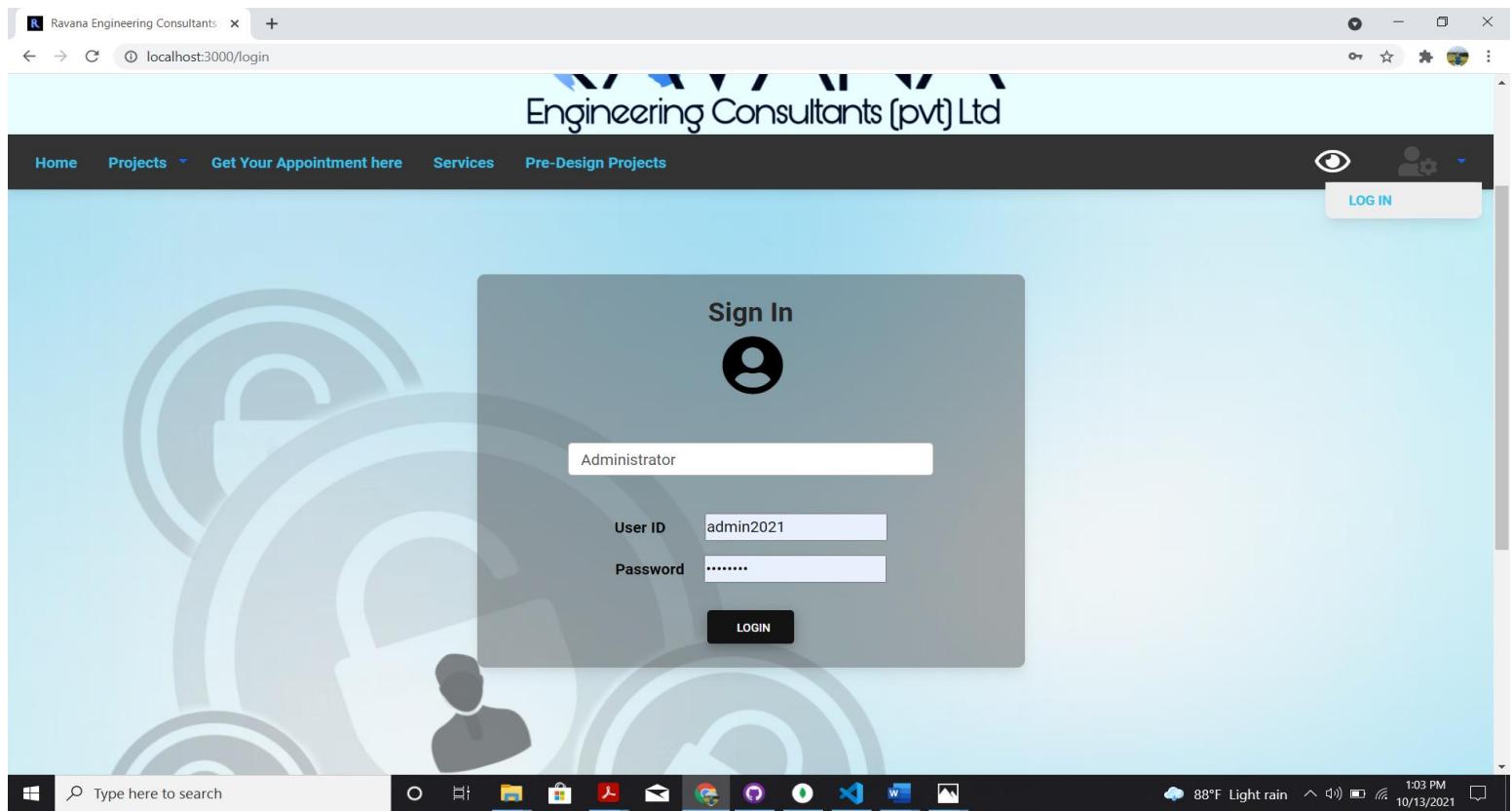
The screenshot shows a web browser window titled 'Ravana Engineering Consultants' at 'localhost:3000/request'. The main heading is 'Request Your Project'. Below it is a form:

PDP ID	<input type="text" value="pdp145"/>
Client or Company Name	<input type="text" value="Nilantha Jayasooriya"/>
Email	<input type="text" value="nilanthajayasooriya@gmail.com"/>
Contact Number	<input type="text" value="0705234781"/>

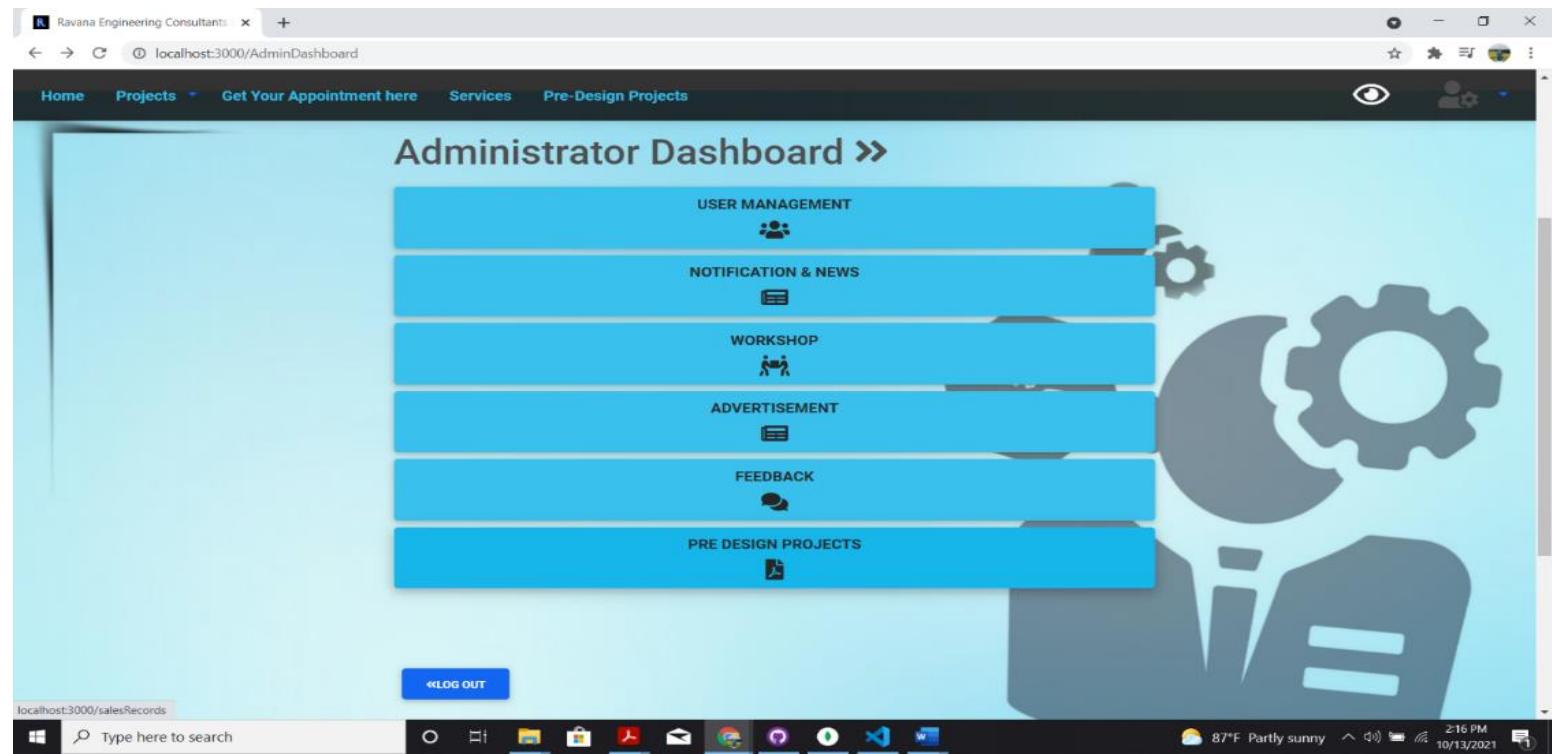
At the bottom of the form are two buttons: 'REQUEST' (blue) and 'DEMO' (orange).

The browser's address bar shows the URL 'localhost:3000/request'. The taskbar at the bottom indicates the system is connecting, the date is 10/13/2021, and the time is 5:38 PM.

Interface – Administrator should login to system for operations in Pre-Designed Project Sales Management



Interface – Navigate to pre-designed projects in admin dashboard in Pre-Designed Project Sales Management



Interface – View all pre-design project records and records can be added edited and deleted in Pre-Designed Project Sales Management

The screenshot shows a web browser window titled "Ravana Engineering Consultants" with the URL "localhost:3000/salesRecords#". The page has a dark header with navigation links: Home, Projects, Get Your Appointment here, Services, and Pre-Design Projects. On the right side of the header are icons for search, refresh, and user profile. The main content area has a light blue gradient background with the title "All PdpRecords" in large, stylized, colorful letters. Below the title is a search bar with the placeholder "Search By PDP ID/Project Category". A table lists five project records:

#	PDP ID	Project Category	Summary	Price	Action
M1001	PDP1001	Reforestation	Hydropower project	300000.00	<button>EDIT</button> <button>DELETE</button>
M1002	PDP1002	Reforestation	Reforestation	280000.00	<button>EDIT</button> <button>DELETE</button>
M1003	PDP1003	Solar Power	Solar new one	20000.00	<button>EDIT</button> <button>DELETE</button>
M1004	pdp1256	Solar Power	Solar power	40000.00	<button>EDIT</button> <button>DELETE</button>
M1005	pdp1008	Reforestation	fewfewf	350000.00	<button>EDIT</button> <button>DELETE</button>

At the bottom of the table are three buttons: "+ ADD NEW PDPRECORDS", "REQUESTED LIST", and "GENERATE REPORT". The browser's taskbar at the bottom shows various pinned icons and the system tray indicates it's 5:38 PM on 10/13/2021.

Interface – Create records in Pre-Designed Project Sales Management

The screenshot shows a web browser window with the same "Ravana Engineering Consultants" title and URL as the previous screenshot. The main content area has a light blue gradient background with the title "Add a New Record" in blue. A modal dialog box is centered on the screen, titled "Please enter the following details". It contains several input fields with placeholder text: "Project ID", "Project Name", "Category", "Summary", "Price", and "Status". Below the input fields are two buttons: a green "SUBMIT" button and an orange "CLOSE" button. The browser's taskbar at the bottom shows various pinned icons and the system tray indicates it's 84°F Partly sunny at 5:38 PM on 10/13/2021.

Interface – Generate pre-designed project records report in Pre-Designed Project Sales Management

The screenshot shows a web browser window for 'Ravana Engineering Consultants' at 'localhost:3000/salesReport'. The page title is 'PDP Records Report'. A search bar at the top right says 'Search By PDP ID/Project Category'. Below the title is a table with columns: #, PDP ID, Project Category, Summary, and Price. The table contains six rows of project data. At the bottom center is a yellow 'DOWNLOAD PDF' button.

#	PDP ID	Project Category	Summary	Price
M1001	PDP1001	Reforestation	Hydropower project	300000.00
M1002	PDP1002	Reforestation	Reforestation	280000.00
M1003	PDP1003	Solar Power	Solar new one	20000.00
M1004	pdp1256	Solar Power	Solar power	40000.00
M1005	pdp1008	Reforestation	fefwefew	350000.00

Below the table is a yellow 'DOWNLOAD PDF' button with a file icon.

The browser's taskbar at the bottom shows the Windows Start button, a search bar with 'Type here to search', pinned app icons for File Explorer, Photos, OneDrive, Mail, Google Chrome, Microsoft Edge, and others, and system status icons for battery, signal, and date/time.

2.1 Implementation

As mentioned above, this application was developed to connect with clients through web application and to have project management, project financial management, project process-based management etc. To implement the application, we used Mongo DB as database, Node js as our back end, react js as front end and express framework(MERN Stack).

Code to implement the database connection:

```
79 const PORT = 8000;
80 const DB_URL = 'mongodb+srv://ravana123:ravana@ravana.y2fvd.mongodb.net/Ravana_Project?retryWrites=true&w=majority';
81
82 mongoose.connect(DB_URL,{
83   useNewUrlParser: true,
84   useUnifiedTopology: true
85 });
86 .then(() =>{
87   console.log('DB connected');
88 })
89 .catch((err) => console.log('DB connection error',err));
90
91
92 app.listen(PORT, () =>{
93   console.log(`App is Running on ${PORT}`);
94 });
```

2.2 Testing

Project ID: ITP2021_S2_B01_G14					
Project Name: RAVANA Engineering Consultants Pvt. Limited					
Testing function: Project Proposal Management					
Test case ID: 1	Test case designed by, IT20137632 Almeda P. P. K				
Test Priority (High/Medium/Low)	High				
Test description: After client makes and appointment, HC schedule a meeting for those or ignore those.					
Test Steps:	<ol style="list-style-type: none"> 1. Visit the web application and log in as HC. 2. Click on the “Client” button in the HC dashboard. 3. Fill all the fields in the meeting schedule form with correct details. 4. Click on the “Proceed” button. 				
Test ID	Test Inputs	Expected Outputs	Actual Output	Result	Comments
1	<ul style="list-style-type: none"> • Client name or company name • Email • Date • Time • Platform • Additional Details(Optional) 	All the meeting schedule details should be successfully embedded to the database. " Meeting Schedule Created Successfully" message will be show up on the screen.	Expected outputs	Pass	"Project Proposal Management" function worked appropriately. Data successfully embedded to the database.

Project ID: ITP2021_S2_B01_G14

Project Name: RAVANA Engineering Consultants Pvt. Limited					
Testing function: Project Proposal Management					
Test case ID: 2	Test case designed by, IT20137632 Almeda P. P. K				
Test Priority (High/Medium/Low)	High				
Test description: Once a meeting is scheduled, the HC can edit it if it wants to.					
Test Steps:	<ol style="list-style-type: none"> 1. Visit the web application and log in as HC. 2. Click on the “Client” button in the HC dashboard. 3. Check the all appointment and click on “client meeting schedules” 4. Review the “All client meeting schedules” table and click on “Edit” button. 5. Refill the relevant areas and click on “Save changes” Button. 				
Test ID	Test Inputs	Expected Outputs	Actual Output	Result	Comments
2	Update the fields that the HC needs to change	All the edited meeting schedule details should be successfully embedded to the database. " Meeting Updated Successfully" message will be show up on the screen.	Expected outputs	Pass	“Project Proposal Management” function editing part worked appropriately. Data successfully embedded to the database.

Project Recruitment Management

Project ID: ITP2021_S2_B01_G14
Project Name: RAVANA Engineering Consultants Pvt. Limited
Testing function: Project Recruitment Management

Test case ID: 1		Test case designed by, IT20135966 Gunasekara A.M.P.P.			
Test Priority (High/Medium/Low)		High			
Test description: When HC announced about new vacancies, Administrator creates a new job advertisement for it.					
<p>Test Steps:</p> <ol style="list-style-type: none"> 1. Visit the web application and log in as Administrator. 2. Click on the “Advertisements” button in the Admin dashboard. 3. Review the “Previous Job vacancies” and click on “Create new ad” button. 4. Fill all the fields in the “Create a new advertisement” form with correct details. 5. Click on the “Publish” button. 					
Test ID	Test Inputs	Expected Outputs	Actual Output	Result	Comments
1	<ul style="list-style-type: none"> • Select image • Select color • Project category • Looking for • Required qualification • Required experience • Additional notices(optional) • Closing date • Contact for more details 	All the job advertisement details should be successfully embedded to the database. "Create an Advertisement Successfully" message will be show up on the screen.	Expected outputs	Pass	“Project Recruitment Management” function worked appropriately. Data successfully embedded to the database.

Project ID: ITP2021_S2_B01_G14	
Project Name: RAVANA Engineering Consultants Pvt. Limited	
Testing function: Project Recruitment Management	
Test case ID: 2	Test case designed by, IT20135966 Gunasekara A.M.P.P.
Test Priority (High/Medium/Low)	High

<p>Test description: When HC announced the new information about the vacancies, the administrator edited the previous ads.</p>

<p>Test Steps:</p> <ol style="list-style-type: none"> 1. Visit the web application and log in as Administrator. 2. Click on the “Advertisements” button in the Admin dashboard. 3. Review the “Previous Job vacancies” and click on edit icon on relevant job ad. 4. Refill the relevant areas and click on “Save changes” Button.

Test ID	Test Inputs	Expected Outputs	Actual Output	Result	Comments
1	Update the fields that the administrator needs to change	All the edited job advertisement details should be successfully embedded to the database. "Advertisement Updated Successfully" message will be show up on the screen.	Expected outputs	Pass	"Project Recruitment Management" function editing part worked appropriately. Data successfully embedded to the database.

Project financial management

Project ID: ITP2021_S2_B01_G14	
Project Name: RAVANA Engineering Consultants Pvt. Limited	
Testing function: Project financial Management	
Test case ID: 1	Test case designed by, IT20133672 Adhihetty C.D.
Test Priority (High/Medium/Low)	High
<p>Test description: After client gave a project for the company, HC creates a project budget and display the payment details.</p>	
<p>Test Steps:</p> <ol style="list-style-type: none"> 1. Visit the web application and log in as Head Consultant. 2. Click on the “Project cash-flows” button in the HC dashboard. 	

<p>3. Review the “All project cash-flows” and click on “Create a new project cash-flow statement” button.</p> <p>4. Fill all the fields in the “Create a new project cash-flow statement” form with correct details.</p> <p>5. Click on the “Submit” button.</p>

Test ID	Test Inputs	Expected Outputs	Actual Output	Result	Comments
1	<ul style="list-style-type: none"> • Client name • Or company name • Client/company email • Contact number • Project category • Assign a cash-flow ID • Field survey cost(Rupees) • Project material cost(Rupees) • Project Commission(Rupees) • Total project budget(Rupees) • Advance fee(Rupees) • Total payment amount(Rupees) • Date of publication 	All the cash-flow details should be successfully embedded to the database. " Add a Cash-Flow Statement Successfully " message will be show up on the screen.	Expected outputs	Pass	"Project financial Management" function worked appropriately. Data successfully embedded to the database.

Project ID: ITP2021_S2_B01_G14	
Project Name: RAVANA Engineering Consultants Pvt. Limited	
Testing function: Project financial Management	
Test case ID: 2	Test case designed by, IT20133672 Adhiketty C.D.
Test Priority (High/Medium/Low)	High
Test description: When HC wants to edit cash-flow, HC can edit the relevant cash-flow.	

<p>Test Steps:</p> <ol style="list-style-type: none"> 1. Visit the web application and log in as Head Consultant. 2. Click on the “Project cash-flow” button in the HC dashboard. 3. Review the “All Project cash flows” and click on edit icon on relevant project cash flow. 4. Refill the relevant areas and click on “Save changes” Button. 					
Test ID	Test Inputs	Expected Outputs	Actual Output	Result	Comments
2	Update the fields that the HC needs to change	All the edited cash-flow details should be successfully embedded to the database. " Cash-Flow Statement Updated Successfully" message will be show up on the screen.	Expected outputs	Pass	“Project financial Management” function editing part worked appropriately. Data successfully embedded to the database.

Project Team Management

Project ID: ITP2021_S2_B01_G14	
Project Name: RAVANA Engineering Consultants Pvt. Limited	
Testing function: Project team Management	
Test case ID: 1	Test case designed by, IT20138868 Ekanayake E. M. V. Y.
Test Priority (High/Medium/Low)	High
Test description: Head Consultant can create new team profiles for junior consultants.	
<p>Test Steps:</p> <ol style="list-style-type: none"> 1. Visit the web application and log in as Head Consultant. 2. Click on the “Project Teams” button in the HC dashboard. 3. Review the “All project team profiles” and click on “Create a new team profile” button. 4. Fill all the fields in the “Create a new project team profile” form with correct details. 5. Click on the “Create Team Profile” button. 	

Test ID	Test Inputs	Expected Outputs	Actual Output	Result	Comments
1	<ul style="list-style-type: none"> • Client name • Or company name • Project category • Due date • Team type • Assign a team ID • Number of members(2-4) • Member 01 • Member 02 • Member 03 • Member 04 	<p>All the project team profile details should be successfully embedded to the database.</p> <p>"Create a Project Team Profile Successfully" message will be show up on the screen.</p>	Expected outputs	Pass	<p>"Project Team Management" function worked appropriately.</p> <p>Data successfully embedded to the database.</p>

Project ID: ITP2021_S2_B01_G14	
Project Name: RAVANA Engineering Consultants Pvt. Limited	
Testing function: Project Team Management	
Test case ID: 2	Test case designed by, IT20138868 Ekanayake E. M. V. Y.
Test Priority (High/Medium/Low)	High
Test description: When HC wants to edit team profile, HC can edit the relevant Team Profile.	
Test Steps: <ol style="list-style-type: none"> 1. Visit the web application and log in as Head Consultant. 2. Click on the "Project Teams" button in the HC dashboard. 3. Review the "All project team profiles" and click on "Edit" button. 4. Refill the relevant areas and click on "Save changes" Button. 	

Test ID	Test Inputs	Expected Outputs	Actual Output	Result	Comments
2	Update the fields that the HC needs to change	All the edited team profile details should be successfully embedded to the database. "Project Team Profile Updated Successfully" message will be show up on the screen.	Expected outputs	Pass	"Project Team Management" function editing part worked appropriately. Data successfully embedded to the database.

Project Process-based Management

Project ID: ITP2021_S2_B01_G14	
Project Name: RAVANA Engineering Consultants Pvt. Limited	
Testing function: Project Process-based Management	
Test case ID: 1	Test case designed by, IT20133818 Perera M.P.M
Test Priority (High/Medium/Low)	High
Test description: When a client give a project, the junior consultant create a profile for looking the project progress.	
Test Steps:	<ol style="list-style-type: none"> 1. Visit the web application and log in as Junior Consultant. 2. Click on the "Project Details Profile" button in the Junior Consultant dashboard. 3. Review the "All project details profiles" and click on "Add new project details profile" button. 4. Fill all the fields in the "Create a new project team profile" form with correct details. 5. Click on the "Create" button.

Test ID	Test Inputs	Expected Outputs	Actual Output	Result	Comments
1	<ul style="list-style-type: none"> • Client name • Or company name • Client/company email • Contact number • Project category • Assign a project ID • Task 01 completed rate • Task 02 completed rate • Task 03 completed rate • Total completed rate (%) • Due date 	All the project details profile details should be successfully embedded to the database. " Add a Project Details Profile Successfully" message will be show up on the screen.	Expected outputs	Pass	"Project Process-based Management" function worked appropriately. Data successfully embedded to the database.

Project ID: ITP2021_S2_B01_G14	
Project Name: RAVANA Engineering Consultants Pvt. Limited	
Testing function: Project Process-based Management	
Test case ID: 2	Test case designed by, IT20133818 Perera M.P.M

Test Priority (High/Medium/Low)		High			
Test description: When JC wants to edit project details profile, JC can edit the relevant Project Details Profile.					
Test Steps:					
<ol style="list-style-type: none"> 1. Visit the web application and log in as Junior Consultant. 2. Click on the “Project Details Profile” button in the JC dashboard. 3. Review the “project details profile” and click on “edit” button on relevant project details profile. 4. Refill the relevant areas and click on “Save changes” Button. 					
Test ID	Test Inputs	Expected Outputs	Actual Output	Result	Comments
2	Update the fields that the JC needs to change	All the edited project details profile details should be successfully embedded to the database. " Project Details Profile Updated Successfully" message will be show up on the screen.	Expected outputs	Pass	"Project Process-based Management" function editing part worked appropriately. Data successfully embedded to the database.

Notification Management

Project ID: ITP2021_S2_B01_G14	
Project Name: RAVANA Engineering Consultants Pvt. Limited	
Testing function: Notification Management	
Test case ID: 1	Test case designed by, IT20135966 Suriyawatta M.A.D.G.A.
Test Priority (High/Medium/Low)	High
Test description: Administrator can create new news and publish.	

<p>Test Steps:</p> <ol style="list-style-type: none"> 1. Visit the web application and log in as Administrator. 2. Click on the “Notification and news” button in the Administrator dashboard. 3. Review the “News and Notification” and click on “Add new notices” button. 4. Fill all the fields in the “Add new notice” form with correct details. 5. Click on the “Add Notice” button. 					
Test ID	Test Inputs	Expected Outputs	Actual Output	Result	Comments
1	<ul style="list-style-type: none"> • Topic • Description • Date 	All the cash-flow details should be successfully embedded to the database. " Add a new notice Successfully" message will be show up on the screen.	Expected outputs	Pass	“Notification and News” function worked appropriately. Data successfully embedded to the database.

Project ID: ITP2021_S2_B01_G14	
Project Name: RAVANA Engineering Consultants Pvt. Limited	
Testing function: Notification Management	
Test case ID: 2	Test case designed by, IT20135966 Suriyawatta M.A.D.G.A.
Test Priority (High/Medium/Low)	High
<p>Test description: When Administer wants to edit notification and news, administer can edit the relevant News and Notification.</p>	
<p>Test Steps:</p> <ol style="list-style-type: none"> 1. Visit the web application and log in as Administrator. 2. Click on the “Notification and News” button in the Administrator. 	

<p>3. Review the “News and notification” and click on edit button on relevant news and notification.</p> <p>4. Refill the relevant areas and click on “Save changes” Button.</p>					
Test ID	Test Inputs	Expected Outputs	Actual Output	Result	Comments
2	Update the fields that the Administrator needs to change	All the edited News and Notification details should be successfully embedded to the database. "Notice Updated Successfully" message will be show up on the screen.	Expected outputs	Pass	“News and notifications” function editing part worked appropriately. Data successfully embedded to the database.

Workshop Management

Project ID: ITP2021_S2_B01_G14	
Project Name: RAVANA Engineering Consultants Pvt. Limited	
Testing function:	Workshop Management
Test case ID: 1	Test case designed by, IT20139544 Kapukotuwa S.A.A.H
Test Priority (High/Medium/Low)	High
Test description: Administrator create new workshop timetable.	
Test Steps:	<ol style="list-style-type: none"> 1. Visit the web application and log in as Administrator. 2. Click on the “Workshop ” button in the Administrator dashboard. 3. Review the “All workshop Records” and click on “Add new workshop” button. 4. Fill all the fields in the “Create new workshop timetable” form with correct details. 5. Click on the “Add New Workshop” button.

Test ID	Test Inputs	Expected Outputs	Actual Output	Result	Comments
1	<ul style="list-style-type: none"> • Date • Time • Topic • Platform • Intellectual • Status 	<p>All the Workshops details should be successfully embedded to the database.</p> <p>" Create a Timetable Successfully" message will be show up on the screen.</p>	Expected outputs	Pass	<p>"Workshop Management" function worked appropriately.</p> <p>Data successfully embedded to the database.</p>

Project ID: ITP2021_S2_B01_G14	
Project Name: RAVANA Engineering Consultants Pvt. Limited	
Testing function: Workshop Management	
Test case ID: 2	Test case designed by, IT20139544 Kapukotuwa S.A.A.H
Test Priority (High/Medium/Low)	High
<p>Test description:</p> <p>When Administrator wants to edit workshop timetable, administrator can edit the relevant workshop timetable.</p>	
<p>Test Steps:</p> <ol style="list-style-type: none"> 1. Visit the web application and log in as Administrator. 2. Click on the "workshop" button in the Administrator. 3. Review the "All Workshop Records " and click on edit button on relevant workshop Timetable. 4. Refill the relevant areas and click on "Save " Button. 	

Test ID	Test Inputs	Expected Outputs	Actual Output	Result	Comments
2	Update the fields that the Administrator needs to change	All the edited workshop details should be successfully embedded to the database. " Timetable Updated Successfully" message will be show up on the screen.	Expected outputs	Pass	"Workshop management" function editing part worked appropriately. Data successfully embedded to the database.

Pre-Designed Project Sales Management

Project ID: ITP2021_S2_B01_G14

Project Name: RAVANA Engineering Consultants Pvt. Limited

Testing function: Pre-Designed Project Sales Management

Test case ID: 1	Test case designed by, IT20133122 Wijenayake R.A.E
Test Priority (High/Medium/Low)	High
Test description: Administrator create pre-design project records.	
Test Steps:	<ol style="list-style-type: none"> 1. Visit the web application and log in as Administrator. 2. Click on the "Pre Design Projects" button in the Administrator dashboard. 3. Review the "All Pdp Records" and click on "Add new PDPRecords" button. 4. Fill all the fields in the "Add a new Record" form with correct details. 5. Click on the "Proceed" button.

Test ID	Test Inputs	Expected Outputs	Actual Output	Result	Comments
1	<ul style="list-style-type: none"> • PDP ID • Project Category • Summary • Price 	All the PDPRecords details should be successfully embedded to the database. " pdpRecord added Successfully " message will be show up on the screen.	Expected outputs	Pass	"Pre-Designed Project Sales Management" function worked appropriately. Data successfully embedded to the database.

Project ID: ITP2021_S2_B01_G14					
Project Name: RAVANA Engineering Consultants Pvt. Limited					
Testing function: Pre-Designed Project Sales Management					
Test case ID: 2					Test case designed by, IT20133122 Wijenayake R.A.E
Test Priority (High/Medium/Low)					High
Test description: When Administer wants to edit pdpRecord, administer can edit the relevant pdprecord.					
Test Steps: <ol style="list-style-type: none"> 1. Visit the web application and log in as Administrator. 2. Click on the "Pre-Design Projects" button in the Administrator. 3. Review the "All PdpRecords" and click on "edit" button on relevant PdpRecords. 4. Refill the relevant areas and click on "Save Changes" Button. 					
Test ID	Test Inputs	Expected Outputs	Actual Output	Result	Comments
2	Update the fields that the Administrator needs to change	All the edited PdpRecords details should be successfully	Expected outputs	Pass	"Pre-Designed Project Sales Management" function editing part

		embedded to the database. " PdpRecord Updated Successfully" message will be show up on the screen.			worked appropriately. Data successfully embedded to the database.
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3. Conclusion

As discussed in the introduction of this report, the main target of this project was developed a computerized system for RAVANA Engineering Consultant Pvt. Limited. Through collaboration eight functions together, the whole team fulfilled the target with a great experience. User profile and financial management, Project process- based management, Workshop management, Project proposal management, Consultant recruitment management, Project team management, pre- Designed project sales management and Feedback and notification management were the functions which implemented throughout the project.

In the user profile management, it manages user profiles and financial reports. The project process-based management manages the progress reports of projects and project details. Make and manage time slots for workshops is a duty assigned to workshop management. In project proposal management, it manages client information of the approved project and display the previous completed projects. Consultant recruitment management handles career applications and manage the interview session. Manage teams among junior consultants, manage and allocate tasks of a project to each team is a duty of project team management. In pre- designed project sale management, it manages sales of pre- designed projects and handles marketing section. Feedback and notification management manages the feedback, feedback reports and the noticeboard. In addition, subsystems are implemented with create, edit, view, delete and report generation process. During the given time period, the eight members of the group went through their functions and succeeded in completing the goal. There were many resources used in this process and inconsiderably of hard work involved. All client requirements were fulfilled.

4. References

- [1] S. W. Ambler, The Elements of UML 2.0 Style, United States of America : Cambridge University Press, 2005.
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Appendix C: Selected Code Listings

Financial Management

Total budget, total payable calculations and generate key function

```
111 totBudget = (e) => {
112   e.preventDefault();
113
114
115   const { _id, projectCategory, name, companyName, email, contactNumber, fieldCost, metirialCost, commission, total, advance, payable, date } = this.state;
116   this.setState({ total: parseInt(this.state.fieldCost) + parseInt(this.state.metirialCost) + parseInt(this.state.commission) + ".00" })
117 }
118
119
120
121 totPayble = (e) => {
122   e.preventDefault();
123
124   const { _id, projectCategory, name, companyName, email, contactNumber, fieldCost, metirialCost, commission, total, advance, payable, date } = this.state;
125   this.setState({ payable: parseInt(this.state.total) - parseInt(this.state.advance) + ".00" })
126 }
127
128 generateKey = (e) => {
129   e.preventDefault();
130
131   const { _id, projectCategory, name, companyName, email, contactNumber, fieldCost, metirialCost, commission, total, advance, payable, date } = this.state;
132   this.setState({ _id: "Cash" + parseInt(this.state.contactNumber) })
133
134 }
135
```

Project Process-Based Management

Calculate total progress and generate key function

```
96 calTotal = (e) => {
97   e.preventDefault();
98
99   const { _id, projectCategory, name, companyName, email, contactNumber, date, task_01, rate_01, task_02, rate_02, task_03, rate_03, progress } = this.state;
100   this.setState({ progress: ((parseInt(this.state.rate_01) + parseInt(this.state.rate_02) + parseInt(this.state.rate_03)) * 100) / 300 + "%" })
101
102
103 generateKey = (e) => {
104   e.preventDefault();
105
106   const { _id, projectCategory, name, companyName, email, contactNumber, date, task_01, rate_01, task_02, rate_02, task_03, rate_03, progress } = this.state;
107   this.setState({ _id: "pid" + parseInt(this.state.contactNumber) })
108 }
```