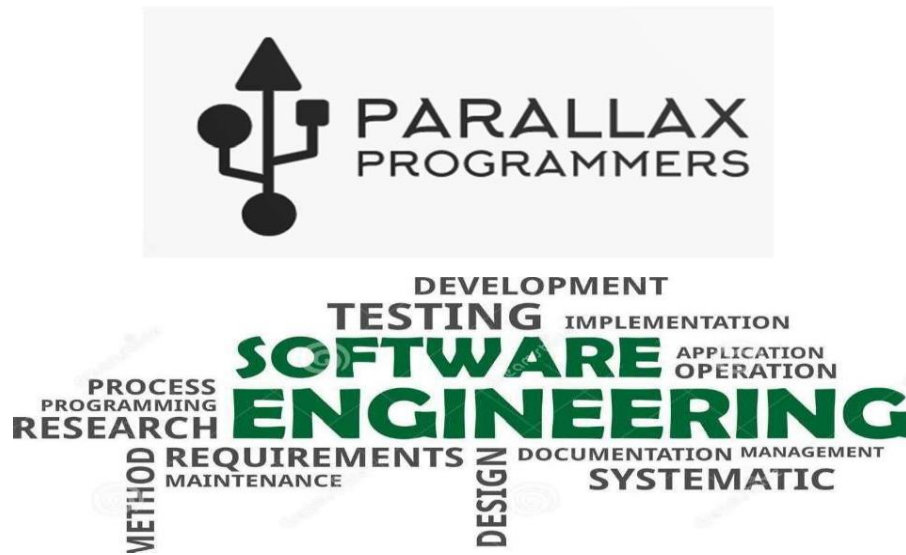


# UNIVERSITY ACCOMODATION FINDER: EASY WAY FOR STUDENTS/STAFF TO SEARCH FOR RENTAL HOMES

CSE 5324-002: SOFTWARE ENGINEERING 1: ANALYSIS, DESIGN AND  
TESTING

## PROJECT TEAM 1: THE PARALLAX PROGRAMMERS



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CAPTAIN - SAI ROHITH PASALA, IN CASE OF ABSENCE OF CAPTAIN THE  
SUBMISSIONS WILL BE DONE BY - MANIDEEP REDDY KARRA

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## **APPLICATION TITLE: UNIVERSITY ACCOMODATION FINDER**

The main aim of this application is to help current and prospective students/staff of university to find the best available housing/accommodation options on and off campus near the university. This application provides the owners of house to post the availability and allows the university student/staff who are looking rent a place, to search and check out all the housing options available to them. Not only does this application help university residents and out-of-state students & staff but also helps international students to ease their way in finding accommodations and gather all budget options before even entering the country itself.

**Mainly our application consists of the following functions:**

### **Function 1: Login/ Sign up**

- The university students/ staff/admin/lessor are required to create an account and login to the app to use these functions. The admin users are also required to login, but this account would have admin privileges that can make major changes to a system.

### **Function 2: Post Listing**

- This function will be a post(add/delete/edit/close), where lessor users/ will be given access to post the housing vacancy, edit, delete, and close the post. This will only be available for lessor users

- o **Post/Edit function:** Owner will have access to add/modify the posted listing.

- o **Delete function:** The owner can delete the listing if they've posted a listing.

- o **Close function:** The owner can close the post if he/she finds a lessee. If the current renter falls through, then the post can again be made available by clearing the close.

### **Function 3: Search flat**

- This function allows option everyone to view all available housing options.

- o Categorized housing option like furnished or non-furnished function: This function allows option to apply a filter and then search based on the selected criteria. Students or Staff will have filter options such as Furnished homes. Unfurnished homes, Number of bedrooms, price etc. Students can contact the lease holder through email or phone and finalize the offer offline. The payment will be taken care offline and will not be included in the app. They can also mark their options to favorites and review all their selected favorite ones.

36

37 **Function 4: Reset password**

38 • In case of student wanting to reset his/her password then the user can reset it in two ways:

39

40       o **Change Password:** If the person wants to change the old password, then after clicking on  
41 change password, he'll have to enter his old password first and then enter the new password and  
42 to confirm their new password.

43       o **Forget function:** If a person forgets his/her password then they've to first click on forget  
44 password and then enter their email id registered with the application. A link will be sent to the  
45 Email id where the new password can be entered.

46

47 **Function 5: Logout**

48 • This function is required for everyone to sign out of their account while not using the application  
49 (For safety purpose)

Note: Here we are thinking of implementing this project using Android Studio and SQLite Database (Also make use of some API's for forget password link to email and other functionalities)

## **TEAM'S INTRODUCTION**

### **SAI ROHITH PASALA**

I have previously worked on Python and Java for my projects in Artificial Intelligence for AI-games. I have also worked on many other projects from courses such as Database development, Information Security, Machine Learning and Data Mining. Coming to my experience in Android development, I am good at Java programming language and know the basics of Android Studio. Although, I do not have many real hands-on projects for Android development, I have developed many applications like sudoku, calculator and GPA estimator applications using Java Applets package and Android studio.

### **SREE HARSHA KANDEPANENI**

I have 26 months of experience as project engineer in this role I have worked on cyber security domain where I had to work for a client to maintain database access and authorize the required access to essential employees according to their designated level of the applications. I have developed personal projects for my academic purpose mainly using Java, Python and I have also developed website for immigrants to connect among themselves.

### **LIKITH REDDY VATTIGUNTA**

I have 18 months of experience in a banking project that uses Abinitio and Informatica as the main tools. I have also worked on Database management system and Linux operating system as well. I had Java in my undergrad and am aware of fundamentals of Java, but I don't have any real time experience. I have a very basic knowledge about the user interface and development tools that the Android studio IDE provides to the developers, but I do not have any hands-on experience.

### **MANIDEEP REDDY KARRA**

Worked as a Java developer in Energytech global company for almost a year. I also have 18 months of experience in building software for electricity retail companies using python, JavaScript, Odoo. During that time, I worked on enhancing the queue mechanism for fast processing and worked on enhancing observer a ticketing tool used by internal employees.

### **ANAMIKA REDDY KAROLLA**

I have three years of work experience as an Application Developer, during which I worked on shell scripting for content management tool. My technologies include SQL, PLSQL, Python. I don't have real time work experience on Java programming. During my under-grad, I have trained in Android Studio and developed a simple calculator application.

## REQUIREMENTS:

Requirement ID	Requirement Statement	Line Reference
R1	The system shall provide a form with the fields UTA ID, Name, Mav ID, phone number , password, confirm password, course, start semester, preferences which will include room preference for the new user to sign up.	14, 15-17
R2	The system shall provide the authenticated user to login to the app.	14, 15-17
R3	The system shall provide the user to either post a listing or search flats.	27, 28-31
R4	The lessor shall provide the user to post the details of the house by giving the mandatory information like Apartment Description, Rent, Phone Number, Email ID, and Type of Room	27, 31-34
R5	The system shall allow the user to view their post listing	19,21
R6	The system shall allow lessor to modify listing	19, 22
R7	The system shall allow the lessor to delete the listing	19, 23
R8	The system shall allow the user to choose between furnished or unfurnished options	27, 31-34
R9	The system shall allow the authenticated user to reset his current password	36-37, 39-41
R10	The system shall allow the user to mark their favorite listing and view it on the favorites page	27, 33-34
R11	The system shall allow the authenticated user to logout from the application	46, 47-48
R12	The system shall provide the user to reset their forgotten password	36-37, 42-44

## USE CASE LIST

Use Case#	Use Case Name
UC1	Sign Up
UC2	Login
UC3	Post Listing
UC3.1	Modify Listing
UC3.2	Delete Listing
UC4	Search Flat
UC4.1	Explore Furnished Apartments
UC4.2	Explore Unfurnished Apartments
UC5	Reset Password
UC6	Log out
UC7	Forgot Password

## HIGH LEVEL USE CASES

### • UC 1: Sign Up

- TUCBW the user being able to create an account by giving all the mandatory details.
- TUCEW the user creating an account.

### • UC 2: Login

- TUCBW the user entering his login credentials and clicking on login button.
- TUCEW the user logging into the app.

### • UC 3: Post Listing

- TUCBW the lease holder clicking on "Post Listing" button on the homepage which will direct him to a new page.
- TUCEW the lease holder providing all the details related to the house and the listing is posted on the app.

### • UC 3.1: Modify listing

- TUCBW the lease holder clicking on modify listing button and modifies any of the given details and clicks on submit.
- TUCEW the listing getting modified, and the changes will be reflected on the app.

### • UC 3.2: Delete Listing

- TUCBW the lease holder clicking on delete listing button when it is no longer required.

- TUCEW the list getting deleted from the app.

- **UC 4: Search Flat**

- TUCBW the user clicking on Search flat button on the homepage.

- TUCEW the user being directed to another page where they have options to choose between Furnished apartments and Unfurnished apartments.

- **UC 4.1: Explore Furnished Apartments**

- TUCBW the user clicking on the preferred furnishing option.

- TUCEW the user being able to browse through all the available furnished housing options and make favorites as well.

- **UC 4.2: Explore Unfurnished Apartments**

- TUCBW the user clicking on the preferred unfurnished option.

- TUCEW the user being able to browse through all the available unfurnished housing options and make favorites as well.

- **UC 5: Reset Password**

- TUCBW the user clicking on Reset password button and will be able to reset their password giving the current password.

- TUCEW the password getting reset.

- **UC 6: Logout**

- TUCBW the user clicking on Logout button to exit from the app.

- TUCEW the user exiting from the app and will be directed to the login page.

- **UC 7: Forgot Password**

- TUCBW the user clicking on the forgot password button on the login screen and will give the registered email id.

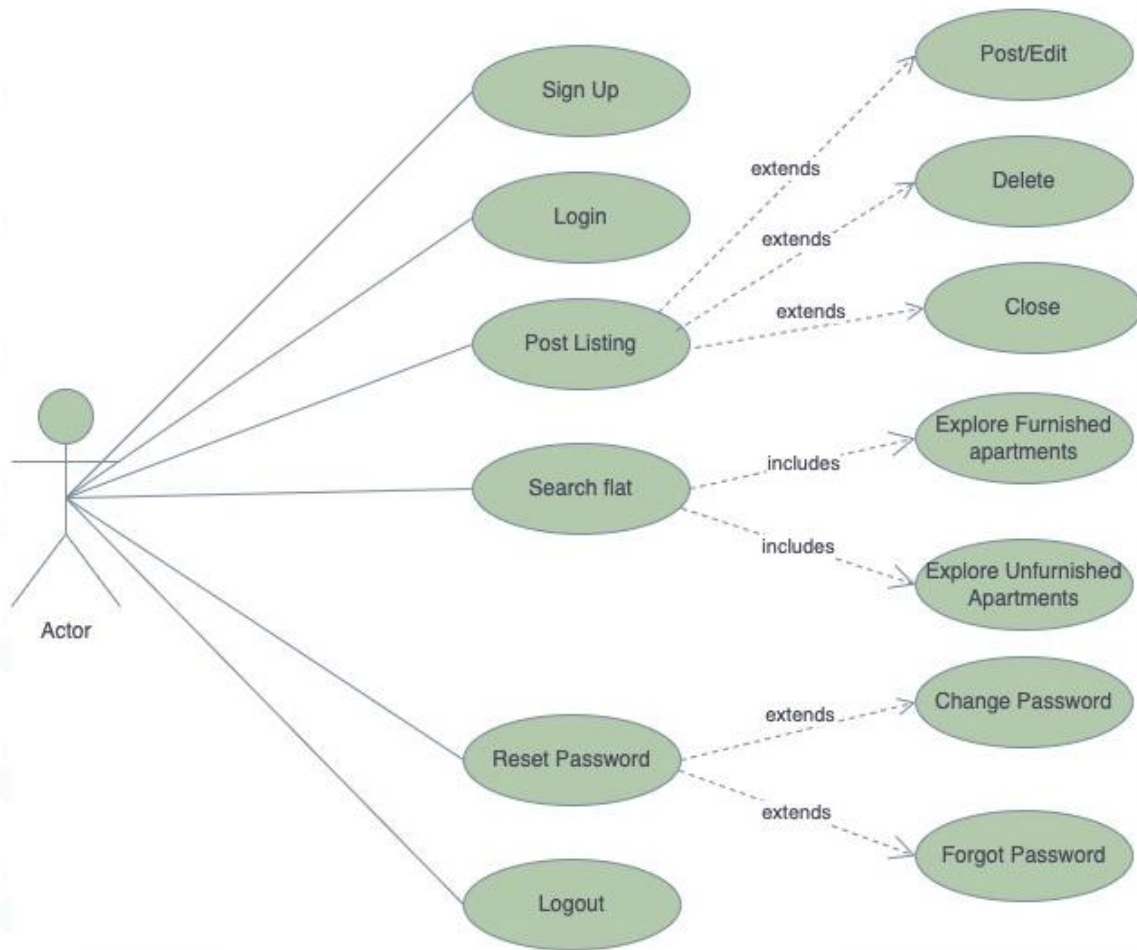
- TUCEW the user being able to reset the forgotten password from the link sent to their email ID.

Note: TUCEW-This Use Case End With, TUCBW-This Use Case Begins With.



## USE CASE DIAGRAM:

### University Accommodation Finder



<b>Requirements to Use Case Traceability Matrix</b>									
Req ID	Priority Weight	UC1	UC2	UC3	UC4.1	UC4.2	UC5	UC6	UC7
R1	1	*							
R2	1		*						
R3	2			*					
R4	2			*					
R5	3			*					
R6	4								
R7	4								
R8	2				*	*			
R9	2						*		
R10	5			*					
R11	2							*	
R12	3								*
	Score	1	1	12	2	2	2	2	3

Note: Priority 1 is the highest priority.

#### INCREMENT MATRIX:

Use Case#	Priority	Effort/ (Person Weeks)	Depends on	Assigned To	Iteration 1 3/02/2022	Iteration 2 4/04/2022	Iteration 3 5/02/2022
UC1	1	3	None	Rohith	3		
UC2	1	3	None	Rohith	3		
UC3	2	7	UC1 and UC2	Harsha		4	3
UC4	2	2	UC1 and UC2	Anamika		2	2
UC4.1	3	3	UC4	Mani deep		2	1
UC4.2	3	3	UC4	Mani deep		2	1
UC5	5	1	UC1 and UC2	Likith			1
UC6	3	1	UC1 and UC2	Anamika		1	
UC7	6	1	UC1 and UC2	Likith			1
Total Effort		24			6	11	9
1 PW=5					30	55	45

Note: Priority 1 is the highest priority.

1 PW= 5 hours .

## Domain Model:

