UNIVERSITY PREMISES RENTAL

SOFTWARE ENGINEERS

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I. PROJECT MAIN MOTIVATION

The primary objective of developing a website for the university to rent out its space is to provide a seamless platform for prospective renters, including students, businesses, and institutions, to connect with the available rental spaces within the university. By implementing this initiative, the university can effectively optimize its resources, generate additional revenue, and offer a valuable service to its community. Furthermore, this endeavor may contribute to the institution's reputation as a forward-thinking, agile organization that prioritizes the interests of its stakeholders.

In addition, providing a user-friendly online platform for renting out space can result in significant benefits for both the university and its clients. This approach can help streamline the leasing process, reduce operational costs, and enhance the overall user experience, resulting in increased satisfaction and repeat business. Overall, this endeavor represents an exciting opportunity for the university to leverage technology to better serve its community while simultaneously advancing its reputation as a leading institution in the field.

II. USERS OF THE WEB APP

There are several potential user categories for the web app that we are developing for the university to rent its premises. Here are some possible user categories and descriptions for each:

Students: This user category includes current and prospective students of the university who may need to rent spaces for events, meetings, or other purposes. These users may range from individual students to student organizations, clubs, or societies. They may have different requirements for the types of spaces they need, depending on the nature of their activities and the number of participants.

Companies: This user category consists of companies or organizations that may require the rental of facilities for conferences, workshops, training sessions, or other events. Depending on the nature of their activity and the number of participants, these users may include tiny startups and huge enterprises and may have varying needs for the types of venues.

Institutes: This user category includes academic or research institutes that may need to rent spaces for seminars, workshops, or other academic activities. These users may range from local institutes to international organizations and may have different requirements for the

types of spaces they need, depending on the nature of their activities and the number of participants.

Administrators: This user category includes university staff or administrators who are responsible for managing the rental process and coordinating with the different user categories. These users may have different levels of access to the web app, depending on their roles and responsibilities.

Maintenance staff: This user category consists of university employees or independent contractors who oversee upkeep and who make sure the rental areas are tidy, secure, and well-equipped. Depending on their roles and responsibilities, these users may also have varied levels of access to the web application.

Each user category may have different needs and requirements for the web app and may require different features or functionalities. It is important to consider the needs of all user categories when designing and developing the web app to ensure that it is user-friendly, efficient, and effective for all users.

III. THE PROJECT PLAN

Week 1-2: Planning and research

Team members: all

Tasks:

- Define project scope and objectives.
- Conduct market research and analyze competitors.
- Identify target user categories and their needs.
- Develop user personas and scenarios.
- Define project requirements and features.

Milestones:

- Project scope and requirements document

Week 3-4: Design and prototyping

- Team members: all

Tasks:

- Design user interface and user experience
- Develop wireframes and mockups.

- Create prototype and conduct user testing.

Milestones:

- Prototype and design document

Week 5-6: Front-end development

- Team members: Abdulaziz, Sultan

Tasks:

- Develop front-end functionality and features.
- Implement user interface and user experience design.
- Ensure cross-browser compatibility and responsiveness.

Milestones:

- Front-end development completed and tested.

Week 7-8: Back-end development and testing

- Team members: Khalid, Salman

Tasks:

- Develop back-end functionality and features.
- Implement database design and data models.
- Ensure system security and performance.
- Conduct system testing and debugging.

Milestones:

- Back-end development and testing completed.

Week 9: Integration, deployment, and launch

- Team members: all

Tasks:

- Integrate front-end and back-end functionality.
- Deploy system to production environment.
- Conduct user acceptance testing.
- Launch system and monitor performance.

Milestones:

- System integration, deployment, and launch completed.

IV. Requirements Modeling:

- Elicit all functional requirements.
  1. User registration and login:
     - Users should be able to create accounts with personal information and login credentials.
     - Different levels of access and permissions should be assigned to different types of users.

  2. Search and filter:
     - Users should be able to search and filter available premises based on location, size, availability, and other criteria.
     - Results should be displayed in an easy-to-understand format with relevant details and images.

  3. Booking and reservation:
     - Users should be able to book and reserve premises online, specifying the desired dates and times and providing payment information.
     - Bookings should be confirmed and tracked in a database or calendar system.

  4. Feedback and reviews:
     - Users should be able to provide feedback and reviews of the premises and the rental experience, which can be displayed publicly or privately.
     - Admins should be able to moderate and manage user reviews and comments.

  5. Admin dashboard:
     - Admins should have access to a dashboard or control panel where they can manage and monitor the system, including user accounts, bookings, payments, and reviews.
     - Admins should be able to generate reports and analytics on system performance and usage.

  6. Notification and communication:
     - The system should be able to send automated notifications and alerts to users regarding their bookings, payments, and other relevant information.
     - Users should be able to communicate with the system and with each other via messaging or chat features.

- Develop all use cases (textual description) of the system.

ID:	U001
Title:	User Registration and Login
Description:	Allow users to create an account and log in to access their profile and perform actions within the system.
Primary Actor:	User
Preconditions:	• User has an internet connection and access to the system. • User is not already registered in the system.
Postconditions:	• User is registered in the system and has an account. • User is logged in to the system and can access their profile and perform actions.
Main Success Scenario:	1. User navigates to the registration page. 2. User provides required details, such as name, email, and password. 3. User submits the registration form. 4. System verifies user information and creates a new account. 5. System redirects user to the login page. 6. User enters email and password and clicks the login button. 7. System verifies user information and logs them into their account. 8. System displays the user's profile page or the homepage of the system.
Extensions:	1. If user enters invalid information during registration, system displays an error message and prompts user to enter valid information. 2. If user enters incorrect login credentials, system displays an error message and prompts user to enter correct credentials. 3. If user forgets their password, they can request a password reset.
Frequency of Use:	Multiple times a day for each user.
Status:	In development

Owner:	Development team
Priority:	High

ID:	U002
Title:	Search and filter
Description:	Allow users to search for specific items and filter search results to find relevant information quickly and easily.
Primary Actor:	User
Preconditions:	• User has an internet connection and access to the system. • User is logged in to the system.
Postconditions:	• User has found the desired information by searching and filtering results.
Main Success Scenario:	1. User navigates to the search page. 2. User enters a search term or selects a filter option to narrow down the search results. 3. System displays search results based on the user's search term or selected filter options. 4. User can further refine the search results by selecting additional filter options or sorting the results. 5. System displays the refined search results. 6. User selects the desired item from the search results. 7. System displays the detailed information about the selected item.
Extensions:	• If the search term entered by the user does not match any item in the system, system displays a message indicating that no results were found. • If user selects a filter option that does not match any item in the system, system displays a message indicating that no results were found.
Frequency of Use:	Multiple times a day for each user.

Status:	In development
Owner:	Development team
Priority:	High

ID:	U003
Title:	Booking and Reservation
Description:	Allow users to search for specific items and filter search results to find relevant information quickly and easily.
Primary Actor:	User
Preconditions:	• User has an internet connection and access to the system. • User is logged in to the system. • The service or item being booked is available.
Postconditions:	• User has successfully booked and reserved the service or item.
Main Success Scenario:	1. User navigates to the booking page. 2. User selects the desired service or item to book. 3. User selects the date and time for the booking. 4. User confirms the booking by clicking the "Book Now" button. 5. System displays the booking confirmation and reservation details. 6. User can view and manage their reservations on their profile page.
Extensions:	• If the selected date and time are not available, system displays an error message and prompts user to select a different date and time. • If the user cancels a reservation, system removes the reservation from the user's profile page and frees up the reserved service or item for other users.
Frequency of Use:	Multiple times a day for each user.
Status:	In development
Owner:	Development team

Priority:	High

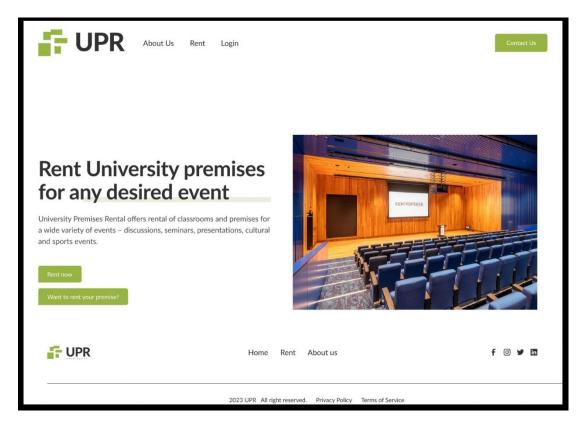| ID:	U004
Title:	Payment Processing
Description:	Allow users to make payments for services or items in the system.
Primary Actor:	User
Preconditions:	- User has an internet connection and access to the system. - User is logged in to the system. - User has selected the desired service or item to purchase.
Postconditions:	User has successfully made a payment and the service or item is reserved or delivered.
Main Success Scenario:	1. User selects the desired service or item to purchase. 2. User adds the item to their cart. 3. User navigates to the checkout page. 4. User enters their payment information, such as credit card details or other payment methods. 5. User confirms the payment by clicking the "Submit Payment" button. 6. System processes the payment and confirms the transaction. 7. System reserves or delivers the purchased item to the user.
Extensions:	- If there is an issue with the payment transaction, system displays an error message and prompts the user to enter valid payment information or select a different payment method. - If the item is no longer available, system displays an error message and prompts the user to select a different item or cancel the purchase.
Frequency of Use:	Multiple times a day for each user.
Status:	In development
Owner:	Development team
Priority:	High

ID:	U005
Title:	Feedback and Reviews
Description:	Allow users to provide feedback and reviews on services or items in the system.
Primary Actor:	User
Preconditions:	• User has an internet connection and access to the system. • User is logged in to the system. • User has used or purchased a service or item.
Postconditions:	• User's feedback or review is submitted and visible to other users.
Main Success Scenario:	1. User navigates to the feedback and review page. 2. User selects the service or item they want to provide feedback or review on. 3. User provides their feedback or review in the provided form. 4. User submits the feedback or review by clicking the "Submit" button. 5. System adds the feedback or review to the service or item's page and makes it visible to other users.
Extensions:	• If the user has already submitted a feedback or review for the selected service or item, system displays a message indicating that the user has already provided feedback or review. • If the user wants to edit or delete their feedback or review, they can do so from their profile page.
Frequency of Use:	Multiple times a day for each user.
Status:	In development
Owner:	Development team
Priority:	High

ID:	U006
Title:	Admin Dashboard
Description:	Allow administrators to access and manage the system's settings and data.
Primary Actor:	Administrator
Preconditions:	• Administrator has an internet connection and access to the system. • Administrator is logged in to the system with administrative privileges.
Postconditions:	• Administrator has successfully accessed and managed the system's settings and data.
Main Success Scenario:	1. Administrator navigates to the admin dashboard page. 2. System displays the dashboard with options to manage users, services or items, payments, and other system settings. 3. Administrator selects the desired option and makes changes or updates as needed. 4. System saves the changes or updates to the system's database.
Extensions:	• If the administrator does not have the necessary privileges to access or manage certain settings or data, system displays an error message and restricts access. • If there are any issues with the data or settings being managed, system displays an error message and prompts the administrator to correct the issue.
Frequency of Use:	Multiple times a day for each user.
Status:	In development
Owner:	Development team
Priority:	High

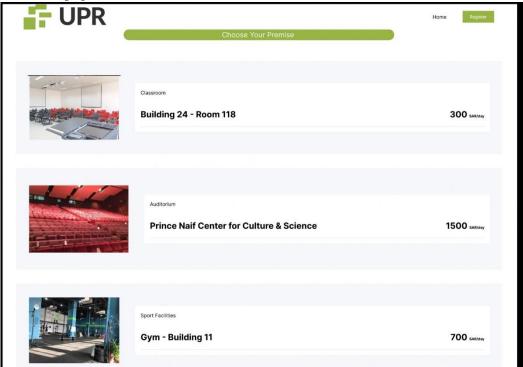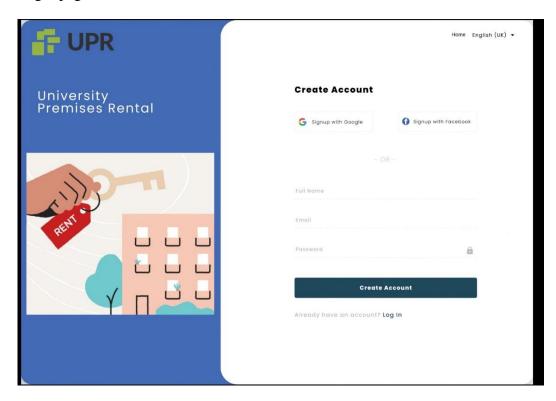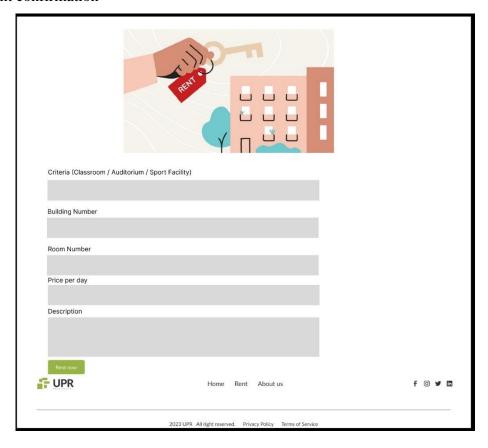|	
ID:	U007
Title:	Notification and Communication
Description:	Allow the system to send notifications and enable communication between users.
Primary Actor:	System
Preconditions:	• User has an internet connection and access to the system. • User has logged in to the system. • User has enabled notifications and communication features in their account settings.
Postconditions:	• User has received the notification or has been able to communicate with other users.
Main Success Scenario:	1. System sends a notification to the user's device or email address for events such as new messages, updates, or reminders. 2. User receives the notification and clicks on it to view the details. 3. System opens the relevant page or message thread to allow the user to interact with the content. 4. User is able to communicate with other users through messaging or other communication channels available in the system.
Extensions:	• If there are any issues with the notification or communication feature, system displays an error message and prompts the user to check their settings or contact customer support.
Frequency of Use:	Multiple times a day for each user.
Status:	In development
Owner:	Development team
Priority:	High

- Home page

- Rent now page
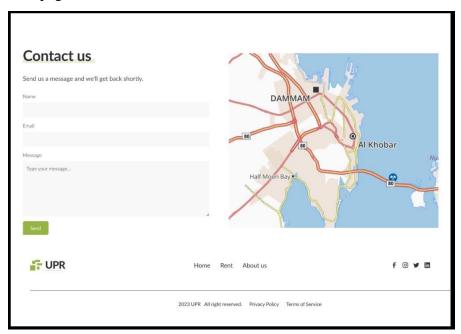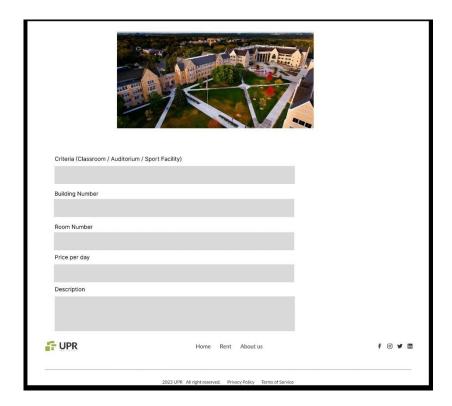

- Login page

- Rent confirmation
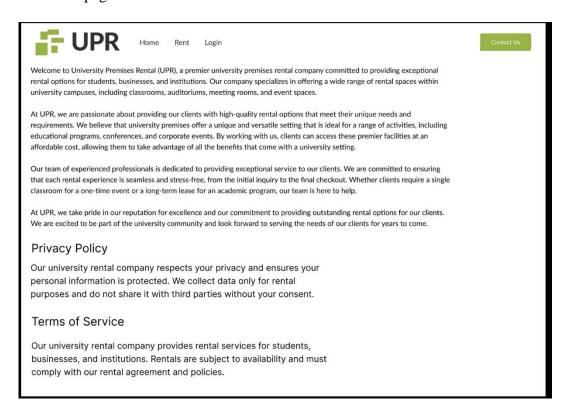

- Contact us page

- Premise addition page

- About us page

The link for figma:

https://www.figma.com/file/00gkNOcwz9u91j9bCwRcBU/Website-Template-%7C-FBL-Architects-(Community)?node-id=315%3A276&t=j8FsZneJRHMRbZDV-1

References and definitions

The link for figma web app: https://www.figma.com

Other than this there is nothing requires defining nor references.