



Designed By:

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Section: B2

Presented To:

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System Analysis and Design for a house rental system

There are two core participants in a house rental system. Those who owns the house or apartments and put them up for rent (Owners). And those who wants to rent it (Tenant). A house rental system provides both participants a fair marketing opportunity where they can get the best result out of their resources.

Aspects to prioritize

In order to build a system, here are few aspects we need to prioritize:

- ❖ Usability
- ❖ A well-functioning search system
- ❖ Category wise sorting
- ❖ Accessibility
- ❖ Financial Strategy

Usability

Here usability refers to the platform's user friendliness. If a web platform is too hard for the users to comprehend and difficult for them to browse, it would lose against its competitors.

Interface:

Interface is the core part of building a web platform. **UI** should be less congested and most used/necessary features should be upfront. As a user the intention should always be to get to their desired results as soon as possible.

In order to satisfy this criterion:

Home interface will not contain any sort of ads. Features will be highlighted and their will be a description.

Access to features:

Features are an important criterion to specific system. Useful features let the users differentiate between Good Websites and Perfect Websites.

Features must be easily accessible. Instead of hiding one feature behind another, it will be highlighted in a separate section. Also, to increase the collection of features some features must be accessed through another or the UI will become congested.

To accomplish this endeavor, features should be prioritized from a user's point of view. And highly required features should be in the homepage. In a house rental system search is an extremely crucial feature.

A well-functioning search system

A search system is everything where only few results are useful to the user amongst hundreds or thousands of results. In order to make a great search system:

- There will be an auto fill up option which will use suggestions from user's given input and match with user's closest locations.
- There will be an advanced search feature which will let user specify his desired location by:
 - City
 - Area
 - Road
- Users will also be able to manually select the area they want to search for using google map.

Category wise sorting

Category wise sorting has a similar functionality to search system. After a search result is shown, users will be able to modify the search result for their own using the sorting function.

It will contain features such as:

- Sort by price
 - Users will be able to sort by 'high to low' or 'low to high' or set price range. By default, it will be set most recommended.
- Sort by rating
 - There will be a rating system of specific area according to benefits they provide. Such as hospitals, transportation system, tourist destinations, educational institutions.
- Sort by popularity
 - This feature will work using how many people have searched for it or viewed the advertisement.

Accessibility

This feature points to user's ability to access the site. Users will be able to view the advertisement without having to make an account or logging in. But in order to get contact details and unlock perks such as advanced search and category wise sorting, they will need an account.

Account Features

After signing up user will be given access to specific features. To sign up a user will have to provide:

- National Identification Number
- Contact Information

Users will be verified via message or call or email.

An account can publish advertisements as well as browse for them. Signed users will be divided into three tiers.

1. Casual Users
2. Premium Users
3. Enterprise Users

Different perks will be available for different types of users.

Financial Strategy

Unless there is an economic advantage the system will not be applicable. Here is how we decided to monetize our design:

Account Tier

As stated previously there are three account tiers. A **casual** user will be able to upgrade to **Premium** status after a **10\$** payment to the system.

Casual Users: Casual users are people who are in a sudden need. A casual user will have -

- Post limit set to 2 per month
- Description limit set to 500 letters

Casual users will not be able to:

- Update their contact info on the advertisement once the advertisement has been posted.
- Access to the rating feature.

Premium Users: Premium users are those who owns one or several buildings or in a need to find premium tier rental houses. They will be able to

- Post unlimited advertisements
- No description limits
- Boost up to 5 advertisements a month
- Search for houses using our special rating system.

Enterprise Users: This is an upgraded tier. But not purchasable via normal pay system. In order to opt into an **Enterprise** level users will have to contact us. This tier is for professionals who are related to real estate businesses or interested in selling lands. Price will vary depending on purpose. An enterprise user will

- Get all features available to a premium user
- Have no boost limit
- Have access to agents
- Have a verified badge
- Have a special webpage where they will be able to sort all their advertisements

***Rating** – Enterprise users will be able to select whether casual users can see their advertisement rating or not.

Boosting: This feature will let a user to increase his post priority. Boosts will be available to purchase. For a boost, user's post will be boosted to the top when someone search for that specific area. Offer pages will include his advertisements if there is any offer available in his advertisement. Boosts will be prioritized via user tier.

Agents: Agents are a part of our system who will verify our enterprise users. They will help their customers through house guide and purchasing.

Verification: Verification is only applicable to enterprise users. Verification refers to trusted sellers. They are verified via agents after physical inquiry.



UNIVERSITY OF ASIA PACIFIC

Department of Computer Science & Engineering

HOUSE RENTAL PROJECT

Course Title : System Analysis & Design Lab

Course Code : CSE 306

Submitted by:

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bashalagbe.com

house rental website scenario

User: There are two types of users-

1. House owner
2. Client (seeking for rent)

Clients are further classified into 2 categories-

1. Bachelor
2. Family

Rent type:

1. Short stay (for staying less than 1month or equal)
2. Long stay (for staying more than 1month)

Home page (without log in): Home page will contain “random house rent posts”. These posts will be shown based on client’s choice. Home page will also show relevant advertisements.

Log in: pre-registered user will have to log in using their phone number/e-mail & password. They can also use their facebook account/gmail suit for log in. They have to fill up a captcha to prove that they are not a robot.

Sign up: *Regular user* must sign up. This section will contain:

1. Full Name
2. Address
3. Date of Birth
4. Phone Number
5. E-mail Address
6. NID No.
7. Age
8. Gender
9. Religion
10. Nationality
11. Marital Status
12. Educational Qualification
13. Occupation

User will receive:

1. Captcha
2. OTP via phone
3. Confirmation mail for security purpose

Premium user will pay a certain amount of money for premium access and ad free service.

After log in:

For house owner:

To post for a house rent will get a form-

- Fill up the form that must contain
 1. Name of the house
 2. Full address (can provide a map location link- optional)
 3. Rent Type (sublet/flat/full house)
 4. Minimum 5 clear photos of exterior and interior of house (video-optional, virtual tour-optional)
 5. Short description of house (how many rooms, washroom, kitchen, doors, window, rooftop, floor size in sq. ft. etc.)
 6. Expected rent
 7. Expected client and expected number of clients (sublet/bachelor/family)
 8. Any hidden charges (service charge, WASA bills etc.)
 9. Facilities (if any-lift, generator, IPS, garden, swimming pool etc.)
 10. Rent type (short-stay/long stay/both)
- After filling up the form, fill up the captcha.
- Then agree to our terms and conditions

After the post, normal user's post will be shown for 20days.

Premium user's post has no date limit.

House owner's post will be deleted after rent agreement is completed.

Any false information provided by house owner (if proven guilty) will result immediate account ban.

Registered normal client feature: (house owner)

- √ One account can post maximum of two posts
- √ With adds
- √ Posts will be auto removed after 14days if not deleted
- √ Description word limit 1000

Registered premium client feature: (house owner)

- √ One account can post unlimited posts
- √ No adds
- √ Post will be remained until user not deleted
- √ Can access “add to top” feature (user post will be shown as one of the top post’s)
- √ Description word limit unlimited

For Client:

Client will look for their desired home using search option.

Search option contains:

- * Location (Enter your preferred location)
- * Option for bachelor/family
- * Option for short stay/long stay

Optional filters for search:

- * Filter by rent
- * Filter by facilities (lift, garden, swimming pool, generator, IPS, garage space etc.)

Sort options:

- *sort by rent: low to high
- *sort by rent: high to low
- *sort by newest ad
- *sort by oldest ad
- *sort by popular ad (high rate to low)
- *sort by size (big to small)
- *sort by size (small to big)

Registered Normal client features: (rent seeker)

- √ Rent posts (with adds)

√ Can add maximum up to 5 favorite houses

Registered premium client features: (rent seeker)

√ Rent posts (no adds)

√ Can add maximum up to 15 favorite houses

√ Advanced search options (search by number of rooms. Search by floor etc.)

About us: For settling a brief history about *bashalagbe.com*, governing body, our vision and mission.

Revenue Generation:

- Advertisements
- User information
- Premium user payments (both rent seeker and house-owner)

FAQs: This section will provide some common asked question answers.

Sample:

Q. How much does it cost to rent in Dhaka?

Q. How much does it cost to rent a luxury fully furnished apartment in Baridhara?

Q. How much does it cost to rent a 16000 square fit full building for rent in Dhaka?

Q. Are television, refrigerator, and washing machines included with a fully furnished apartment?

Q. What are some common furnishings of a furnished apartment?

Q. What is the average rent of a furnished apartment in Dhaka?

Q. What are the best places to rent and live in Dhaka?

Careers: vacancies available at our website *bashalagbe.com*

Terms and conditions:

Sample:

1. By accessing and using *bashalagbe.com*, you accept and agree to be bound, without modification, limitation or qualification, by the Terms.

2. You also represent that you are an individual and not a corporation.
3. *bashalagbe.com* reserves the right, at its discretion, to change, modify, add, or remove portions of these Terms at any time by posting the amended Terms.
4. *bashalagbe.com* reserves the right to suspend / cancel, or discontinue any or all channels, products or service at any time without notice, make modifications and alterations in any or all of the content, products and services contained on the Site without prior notice.
5. Your access or use of the site or service shall mean that you have read, understand and agree to be bound by the terms. By accessing or using any Website or Services you also represent that you have the legal authority as per applicable law (including but not limited to age requirement) to accept the Terms on behalf of yourself and/or any other person you represent in connection with your use of the Site or Services.
6. *bashalabe.com* reserves the right to suspend / cancel, or discontinue any or all channels, products or service at any time without notice, make modifications and alterations in any or all of the content, products and services contained on the Site without prior notice.
7. Your access or use of the site or service shall mean that you have read, understand and agree to be bound by the terms.
8. To access the Services, you will be asked to enter your individual user's name and password, as chosen by you during your registration.
9. Using our Services does not give you ownership of any intellectual property rights in our Services or the content you access. You may not use content from our Services unless you obtain permission from its owner or are otherwise permitted by law.
10. If there is any conflict between these Terms and Conditions and rules and/or specific terms of use appearing on this site relating to specific material then the latter shall prevail.
11. These terms and conditions shall be governed and construed in accordance with the laws of Bangladesh. Any disputes shall be subject to the exclusive jurisdiction of the Courts of Bangladesh.
12. If these Terms and Conditions are not accepted in full, the use of this site must be terminated immediately.

Privacy policy:

Sample:

- **Information Collection and Use**
- **Log Data**
- **Cookies and site settings**
- **Service Providers**
- **Links to Other Sites**
- **Changes to This Privacy Policy**
- **Contact Us**



Designed By:

Md. Asadujjaman Noor

Registration No: 20101101

Section: B2

Presented To:

Ali Zafar Sadiq,

Lecturer, CSE, UAP

System Analysis and Design

User Scenario

Dhaka, the capital of Bangladesh, is one of the fastest growing cities in the world. It has many administrative and infrastructure facilities; an extensive road and telecommunication network; and better employment than any other city in the country. People are attracted to the city for its facilities. But in this huge population, the people who are finding a place to stay, especially a flat or room - know how much of a hassle it can be to find a suitable place. One needs to go around from here to there, from one area to another. It kills our valuable time and energy. To reduce this problem a little bit, we came up with our project idea "Basha Lagbe".

In this application we will see these scenarios:

1. User
2. Data collection and verification
3. Revenue model

User: (there are 3 type of users)

1. Customer
 2. Seller
 3. Administrator
- Customer: who are searching for House
Seller: who are posting their house
Administrator: who are controlling this system

Data collection and verification:

- User registers in our application with their details (like email or phone number, name, occupation etc.)
- For renting a house the seller gives us their location address, house photos, contact numbers, price.
- Our internal AI system will verify every data.
- We show only house photos, range of price and which area

Revenue model:

- Seller can show advertisements.
- Users can get details up to 2 houses without any extra charge. After the limit is over user can select up to 5 advertisements and pay a small fee to view them.



Proposed By:

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Registration No. 20101095
- ❖ **Md. Asadujjaman Noor**
Registration No. 20101101
- ❖ **Sheikh Nafez Sadnan**
Registration No. 20101106

Proposed Idea:

House Rental System

Presented To:

Ali Zafar Sadiq
Lecturer, CSE, UAP

Intro:

Dhaka, the capital of Bangladesh, is one of the fastest growing cities in the world. It has many administrative and infrastructure facilities, an extensive road and telecommunication network, and better employment facilities compared to any other cities in the country. People are attracted to the city for its facilities. But in this huge population, the people who are searching for a place to stay, especially a flat or room - knows how much of an endeavor this is. One needs to roam aimlessly - from one area to another. It kills our valuable time and energy. To reduce this problem a little bit, we came up with our project “**Basha Lagbe**”.

Description:

There are three core participants or users in a house rental system.

- Those who owns the house or apartments and put them up for rent (Owners).
- Those who wants to rent it (Tenant).
- System Developers.

A house rental system provides both participants (Owners and Tenant) a fair marketing opportunity where they can get the best result out of their resources.

Tenants can be divided into two categories:

1. Bachelor
2. Family

Rent Type:

1. Short stay (for staying less than 1month or equal)
2. Long stay (for staying more than 1month)

Aspects to prioritize

In order to build a system, here are few aspects we need to prioritize:

- ❖ Usability
- ❖ A well-functioning search system
- ❖ Category wise sorting
- ❖ Accessibility
- ❖ Financial Strategy

Usability

Here usability refers to the platform's user friendliness. If a web platform is too hard for the users to comprehend and difficult for them to browse, it would lose against its competitors.

Interface:

Interface is the core part of building a web platform. **UI** should be less congested and most used/necessary features should be upfront. As a user the intention should always be to get to their desired results as soon as possible.

Home page (without logging in):

Home page will contain "Random house rent posts". These posts will be shown based on client's choice. Home page will contain property advertisements and promoted posts.

Signing up:

Sign up feature lets the user register to our platform. To register users will have to provide:

1. **Full Name***
2. Permanent Address
3. Date of Birth
4. **Phone Number***
5. E-mail Address
6. **NID No.***
7. **Gender***
8. Religion
9. Nationality
10. **Marital Status***
11. Educational Qualification
12. **Occupation***

*Mandatory

User will receive:

1. Captcha 2. OTP via phone 3. Confirmation mail for security purpose

Premium users need to pay a certain amount of money for premium access and ad free service.

Data Verification:

- Our internal AI system will verify every data.
- We show only house photos, range of price and which area

Logging in:

Pre-registered users will have to log in using their phone number or e-mail and password. They can also use their Facebook account/Gmail suit to log in. To protect the platform for spam, they will have to fill up a captcha to prove they are not robot.

After logging in:

Owners:

To post a house or room for rent they need to fill up an advertisement form:

- Form must contain
 1. Name of the house
 2. Full address (Optionally selecting the location via Google map)
 3. Rent Type (sublet/flat/full house)
 4. Minimum 5 clear photos of exterior and interior of house (Video - Optional, Virtual tour - Optional)
 5. Short description of the house (Room numbers, Washrooms, Kitchen, Doors, Window, Rooftop, Floor size in sq. ft. etc.)
 6. Expected rent
 7. Expected client type and number of clients (sublet/bachelor/family)
 8. Any extra charges (service charge, WASA bills etc.)
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- After filling up the form, fill up a captcha.
- Agree to our terms and conditions

*House owner's post will be deleted after rent agreement is completed.

Any false information provided by house owner (if proven) will result in immediate account ban.

Accessibility

This points to user's ability to access the site. Users will be able to view the advertisement without having to make an account or logging in. But in order to get contact details and unlock perks such as advanced search and category wise sorting, they will need an account.

Access to features:

Features are an important criterion to a specific system. Useful features let the users differentiate between Good Websites and Perfect Websites.

Features must be easily accessible. Instead of hiding one feature behind another, it will be highlighted in a separate section. Also, to increase the collection of features some features must be accessed through another or the UI will become congested.

To accomplish this endeavor, features should be prioritized from a user's point of view. And highly required features should be in the homepage. In a house rental system search is an extremely crucial feature.

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A search system is everything where only few results are useful to the user amongst hundreds or thousands of results. In order to make a great search system:

- There will be an auto fill up option which will use suggestions from user's given input and match with user's closest locations.
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Category wise sorting

Category wise sorting has a similar functionality to search system. After a search result is shown, users will be able to modify the search result for their own using the sorting function.

It will contain features such as:

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Financial Strategy

Unless there is an economic advantage the system will not be applicable. Here is how we decided to monetize our design.

Account Features

After signing up user will be given access to specific features. An account can publish advertisements as well as browse for them. Signed users will be divided into three tiers.

1. Normal Users
2. Premium Users
3. Enterprise Users

Different perks will be available for different types of users.

For Normal Clients: (House owner)

- ✓ One account can post maximum of two posts
- ✓ Contains Ads
- ✓ Posts will be automatically removed after 14days if not deleted
- ✓ Description word limit 700

For Premium Clients: (House owner)

- ✓ Unlimited advertisement limit
- ✓ Ad free browsing
- ✓ Post will remain unless the deal is completed or user removes.
- ✓ Can use the “Promote” feature with for free up to 6 times a month
- ✓ No description limit.

For Client:

Client will be able to customize the search option according to their need. They can customize by:

- Bachelor/Family
- Stay duration
- Rating (Applicable for Premium Users)

Features for Normal Clients: (Tenant)

- ✓ Look for rent posts (will contain advertisements)
- ✓ Can *favorite up to 5 houses

*This feature lets user quickly find and return to the post they liked.

Features for Premium Clients: (Tenant)

- ✓ Ad free browsing
- ✓ Can favorite up to 15 houses
- ✓ Advanced search options (Search by number of rooms, Search by floor, Search via rating etc.)

Enterprise Users:

This is an upgraded tier. But not purchasable via normal pay system. In order to opt into an **Enterprise** level users will have to contact us. This tier is for professionals who are related to real estate businesses or interested in selling lands. Price will vary depending on purpose. An enterprise user will

- Get all features available to a premium user

- Have no promotion limit
- Have access to field agents
- Have a verified badge
- Have a special webpage where they will be able to sort all their advertisements

***Rating** – Enterprise users will be able to select whether casual users can see their advertisement rating or not.

Promoting: This feature will let a user to increase his post priority. “Promote” will be available to purchase. For a promotion, user’s post will be boosted to the top when someone search for that specific area. Offer pages will also include his advertisements if there is any offer available in his advertisement. Promotions will be prioritized via user tier.

Agents: Agents are a part of our system who will verify our enterprise users. They will help their customers through house guide and purchasing.

Verification Mark: Verification mark is only applicable to enterprise users. Verification refers to trusted sellers. They are verified via agents after physical inquiry.

FAQs:

This section will provide some common asked question answers.

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Q. What is the average rent of a furnished apartment in Dhaka?

Q. What are the best places to rent and live in Dhaka?

Careers: vacancies available at our website *bashalagbe.com*

Terms and conditions:

Sample:

1. By accessing and using *bashalagbe.com*, you accept and agree to be bound, without modification, limitation or qualification, by the Terms.
2. You also represent that you are an individual and not a corporation.
3. *bashalagbe.com* reserves the right, at its discretion, to change, modify, add, or remove portions of these Terms at any time by posting the amended Terms.
4. *bashalagbe.com* reserves the right to suspend / cancel, or discontinue any or all channels, products or service at any time without notice, make modifications and alterations in any or all of the content, products and services contained on the Site without prior notice.
5. Your access or use of the site or service shall mean that you have read, understand and agree to be bound by the terms. By accessing or using any Website or Services you also represent that you have the legal authority as per applicable law (including but not limited to age requirement) to accept the Terms on behalf of yourself and/or any other person you represent in connection with your use of the Site or Services.
6. *bashalabe.com* reserves the right to suspend / cancel, or discontinue any or all channels, products or service at any time without notice, make modifications and alterations in any or all of the content, products and services contained on the Site without prior notice.
7. Your access or use of the site or service shall mean that you have read, understand and agree to be bound by the terms.
8. To access the Services, you will be asked to enter your individual user's name and password, as chosen by you during your registration.
9. Using our Services does not give you ownership of any intellectual property rights in our Services or the content you access. You may not use content from our Services unless you obtain permission from its owner or are otherwise permitted by law.
10. If there is any conflict between these Terms and Conditions and rules and/or specific terms of use appearing on this site relating to specific material then the latter shall prevail.

11. These terms and conditions shall be governed and construed in accordance with the laws of Bangladesh. Any disputes shall be subject to the exclusive jurisdiction of the Courts of Bangladesh.
12. If these Terms and Conditions are not accepted in full, the use of this site must be terminated immediately.

Privacy policy:

Sample:

- **Information Collection and Use**
- **Log Data**
- **Cookies and site settings**
- **Service Providers**
- **Links to Other Sites**
- **Changes to This Privacy Policy**
- **Contact Us**