System Requirement Analysis:

1) **Data Requirements:** The set of data or information that's involved in project is defined using data requirements. For Bashabari project, the moat data required is that the login information to register the application. Without registration, user will not get the complete feature of our application.

2) **Functional Requirements:** Functional requirements are properties that must exist within the final system. To use the application, users need to download the application from the google play store. Now our application is free in play store. To use the application, the user should register and login to the application after installing by providing login information. Once, user logins into the application, they will use all the features.

3) **Performance Requirements:** Response time, scalability, platform dependencies, tolerance are the performance requirements that ought to be considered when developing any system. The application or system should be able to respond quickly when the user interacts with the application. The application should be developed in such a way that it should be scalable enough to accept new features when we want to expand the application complexity. The application should run in all the specified software and hardware requirements from the design phase of the project. Also, the tolerance rate of the application should be at a higher level in case of network issues and when the application crashes or stops. It should be able to deliver the information about any of those issues to the user when the system is no longer able to provide results when the user wants.

4) **Testing and Maintainability Requirements:** The application should be able to meet all the possible good and bad test cases under a test environment. Application should be developed in such a way that it does not have any issues or crashes when the user is using the application. It should be able to

extend itself when we expand the code or implement any new functions to the existing application.

Validation:

Validating any application is an important criterion before releasing the application to the users. If there is no validation, the information entered by users may be redundant, formatted inappropriately and cannot be maintained. For example, we can validate mobile number in a way that it should contain 11 digits. Suppose, we don't check the validation, there are chances for the user to enter a wrong phone number and save it. In case home owner need contact with the tenants, owner cannot contact the respective person. Similarly, validations for all the fields that are used to save information in any application are highly necessary. In this application, we have done many validations in the Registration Page and Login Page.

In the Login Page, I have validated all the login information that is required for the user to sign up for the first time. Fields like username, password, mobile number are validated appropriately by displaying error messages. The username should not contain any digits, password should be minimum of six letters, the phone number should be a valid number and if the phone number is already registered, an error message is shown saying that phone number exists