**Requirements**

## Functional requirements

1. **Secure Login System:**
   1. Users should be able to register and log in to the bug tracking system securely.
   2. Passwords must be encrypted and stored securely.
   3. There should be role-based control to manage user permissions within the projects.
2. **Project Selection and Creation:**
   1. Users should be able to select existing projects or create new ones.
   2. Project creation should include essential details such as name, description, and team members as well as role-based permissions.
3. **Project Dashboard:**
   1. This should provide an overview of current tickets.
   2. Filtering and searching should accessible here.
4. **Ticket Management and Creation:**
   1. Users should be able to create new bug tickets or tasks.
   2. Bug tickets should include fields such as title, description, status, assigned developer, etc.
   3. Users should be able to create comments within tickets
5. **Search and filter functionality:**
   1. Users should be able to search for specific tickets by ticket details such as title, description, status.
   2. Users should be able to search for projects by title or description

## Non-Functional requirements

1. **Ease of Navigation:**
   1. The user interface should be intuitive and easy to navigate.
   2. Users should be able to find relevant information quickly and efficiently.
   3. It should look consistent on various resolutions
2. **Communication and Collaboration Features:**
   1. Collaboration features such as commenting on bug tickets should be present
3. **Scalability and Expansion:**
   1. The system should be designed to handle increasing numbers of users and projects.
   2. It should be easily expandable to incorporate additional features in the future.
4. **Accessibility:**
   1. The web-based application should be accessible from various devices and operating systems.
   2. It should ensure inclusivity for all users.
5. **User training and onboarding**
   1. Should provide comprehensive documentation to facilitate user training and onboarding
   2. Process should be intuitive and minimize the learning curve
6. **Security:**
   1. Data should be stored securely with encryption and access controls.
   2. The system should be protected against common security threats such as SQL injection
7. **Performance:**
   1. The system should be responsive, even with many concurrent users.
8. **Reliability:**
   1. The system should be reliable and available consistently to users.
   2. Measures such as regular backups should be in place to mitigate data loss.