**Report about best devices in PC, best operating system and suitable programming languages.**

**System Name: Task Management Application**

**Best Devices**

Computers: Used In Doing The tasks given by the manger and giving tasks as a manager

Servers: To store the company’s projects and make all the devices connected to each other

* **Best Operating System**

**Windows: Widely used around the world because it is a simple to use OS**

**Linux: It’s security level is high if there is data that is sensitive using it will be good in protecting this data**

* **Suitable Programming Languages**

**SQL server: One of the best database languages using it will help us in storing the data of the Employees, Managers, etc**

**C# (.Net): Famous for Desktop and Web applications because of its flexibility and security.**

**Design of an integrated system (Class diagram)**

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Has

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| --- |
| **Users** |
| **+UserID: int (PK)**  **+Username: string**  **+UserPassword:int**  **+UserEmail:string**  **+UserRole:string** |

|  |
| --- |
| **Tasks** |
| **TaskID: int (PK)**  **UserID:int (FK)**  **TaskTitle:string**  **TaskDesc::string**  **TaskStatus:string**  **DueDate: datetime** |

**Testing**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Test case ID** | **Test case description** | **Test Steps** | **Test Data** | **Expected Result** | **Actual Result** | **Pass/Fail** |
| 1 | Testing Login Functionality (valid username, valid password as admin | Get username  Get password  Click login | Username: Robert Chen  Password: robert2024 | Login to Manager Page | Login to Manager Page | Pass |
| 2 | Testing Login Functionality (valid username, valid password as Employee | Get username  Get password  Click login | Username: David Kim  Password: davidSecure! | Login To User Tasks Page | Login To User Tasks Page | Pass |
| 3 | Testing Login Functionality (blank username, blank password | Get username  Get password  Click login | Username:-  Password:- | Error Message Please Enter Username And Password | Error Message Please Enter Username And Password | Pass |
| 4 | Testing Login Functionality (valid username, invalid password | Get username  Get password  Click login | Username: Robert Chen  Password:123 | Error Message Invalid Username or Password | Error Message Invalid Username or Password | Pass |
| 5 | Testing Login Functionality (invalid username, valid password | Get username  Get password  Click login | Username: Robert Chenn  Password: robert2024 | Error Message Invalid Username or Password | Error Message Invalid Username or Password | Pass |
| 6 | Testing Login Functionality (invalid username, invalid password | Get username  Get password  Click login | Username:johndoe  Password:123 | Error Message Invalid Username or Password | Error Message Invalid Username or Password | Pass |