**First Task: Prepare the working environment for desktop softwares**

Second Task: Develop an application that works using desktop softwares technology, according to the most modern technology available.

Third Task: Develop a building block from ready programs and programming parts

Evidence and Proof Requirements 1,2,3,4:

Product Evidence

The student is requested to create the following desktop application, and to submit a report including the best choice in terms of cost, availability in the target market, and the application’s requirements.

The task is:

**System Name: Task Management Application**

**Used Tool: WPF .NET**

**System Navigation Flow:**

* **Log In Page**
  + **The user enters their username and password.**
  + **Based on the user’s role, they are directed to different pages:**
    - **If the user’s role is Employee, they are directed to the View Tasks page.**
    - **If the user’s role is Manager, they are directed to the User Management page.**

A login screen with black text

Description automatically generated

**Page Descriptions:**

1. **View Tasks Page (for Employees)**
   * **The page displays the employee’s tasks, divided into two data grids:**
     + **The first data grid lists tasks with the statuses “Pending” and “In Progress.”**
     + **The second data grid shows tasks with the status “Completed.”**
   * **Employees can update the status of their tasks directly on this page.**
     + **When employee change the status to “Completed”, it will appear in the second data grid.**

A screenshot of a computer

Description automatically generated

1. **User Management Page (for Managers)**
   * **The page displays a list of employees along with their assigned tasks.**
   * **The manager can perform task management functions, including adding, deleting, and updating tasks for employees.**

A screen shot of a login page

Description automatically generated

**Database: create two tables User and Tasks.**

1. **User table has the following attributes:**
   * **UserID (Primary Key, int)**
   * **Name (nvarchar, required)**
   * **Password (nvarchar, required)**
   * **Email (nvarchar, required, unique)**
   * **Role (nvarchar, options: Manager, Employee)**
2. **Tasks table has the following attributes:**
   * **TaskID (Primary Key, int)**
   * **Title (nvarchar, required)**
   * **Description (nvarchar, optional)**
   * **Status (nvarchar, options: Pending, In Progress, Completed)**
   * **DueDate (datetime)**

**UI Controls: Using the following controls in XML is a must**

* **Label**
* **Textbox**
* **Combobox**
* **Button**
* **Radio button**
* **Grid**
* **Image**

**Style Controls: Using the following style controls in XML is a must**

* **Font weight**
* **Background**
* **Margin**
* **Border**
* **Foreground**
* **Font family**

Forth Task: Verify the that outputs of the building blocks match the specifications (TESTING)

Fifth Task: Ensure using version control