ASSIGNMENT 1

//mini-project that involves CRUD (Create, Read, Update, Delete) operations using a list, for and foreach loops, if-else statements, and a switch case in C#. In this project, we'll create a basic task list application.

Project Description: Simple Task List Application

Features:

.Create a task: Add a new task with a title

.Read tasks: Display the list of tasks with their titles and descriptions.

.Update a task: Modify the title or description of an existing task.

.Delete a task: Remove a task from the list.

.Exit: Exit the application.

Task:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Assignment
{


    class Program
    {
        static List<Task> tasks = new List<Task>();

        static void Main()
        {
            bool exit = false;
            do
            {
                Console.WriteLine("Task List Application");
                Console.WriteLine("1. Create a task");
                Console.WriteLine("2. Read tasks");
                Console.WriteLine("3. Update a task");
                Console.WriteLine("4. Delete a task");
                Console.WriteLine("5. Exit");
                Console.Write("Enter your choice: ");

                switch (Console.ReadLine())
                {
                    case "1":
                        CreateTask();
                        break;
                    case "2":
                        ReadTasks();
                        break;
                    case "3":
                        UpdateTask();
```

```
                    break;
                case "4":
                    DeleteTask();
                    break;
                case "5":
                    exit = true;
                    break;
                default:
                    Console.WriteLine("Invalid choice. Please try again.");
                    break;
            }

            Console.WriteLine();
        } while (!exit);
    }

    static void CreateTask()
    {
        Console.Write("Enter task title: ");
        string title = Console.ReadLine();

        Console.Write("Enter task description: ");
        string description = Console.ReadLine();

        tasks.Add(new Task(title, description));
        Console.WriteLine("Task created successfully.");
    }

    static void ReadTasks()
    {
        if (tasks.Count == 0)
        {
            Console.WriteLine("No tasks available.");
        }
        else
        {
            Console.WriteLine("Tasks:");
            foreach (var task in tasks)
            {
                Console.WriteLine($"{tasks.IndexOf(task) + 1}. {task.Title} -
{task.Description}");
            }
        }
    }

    static void UpdateTask()
    {
        Console.Write("Enter the index of the task to update: ");
        if (int.TryParse(Console.ReadLine(), out int index) && index >= 0 && index <
tasks.Count)
        {
            Task taskToUpdate = tasks[index];

            Console.WriteLine("Current task title: " + taskToUpdate.Title);
            Console.WriteLine("Current task description: " +
taskToUpdate.Description);

            Console.WriteLine("Do you want to update the title? (Y/N)");
            if (Console.ReadLine().ToUpper() == "Y")
            {
                Console.Write("Enter new title: ");
                string newTitle = Console.ReadLine();
                taskToUpdate.Title = newTitle;
            }
```

```
                Console.WriteLine("Do you want to update the description? (Y/N)");
                if (Console.ReadLine().ToUpper() == "Y")
                {
                    Console.Write("Enter new description: ");
                    string newDescription = Console.ReadLine();
                    taskToUpdate.Description = newDescription;
                }

                Console.WriteLine("Task updated successfully.");
            }
            else
            {
                Console.WriteLine("Invalid index. Please try again.");
            }
        }

        static void DeleteTask()
        {
            Console.Write("Enter the index of the task to delete: ");
            if (int.TryParse(Console.ReadLine(), out int index) && index >= 0 && index <
tasks.Count)
            {
                tasks.RemoveAt(index);
                Console.WriteLine("Task deleted successfully.");
            }
            else
            {
                Console.WriteLine("Invalid index. Please try again.");
            }
        }

        class Task
        {
            public string Title { get; set; }
            public string Description { get; set; }

            public Task(string title, string description)
            {
                Title = title;
                Description = description;
            }
        }
    }

}
```

OUTPUT:

Task List Application

1. Create a task

2. Read tasks

3. Update a task

4. Delete a task

5. Exit

Enter your choice: TASK1

Invalid choice. Please try again.

Task List Application

1. Create a task

2. Read tasks

3. Update a task

4. Delete a task

5. Exit

Enter your choice: 1

Enter task title: TASK1

Enter task description: DESCRIPTION 1

Task created successfully.

Task List Application

1. Create a task

2. Read tasks

3. Update a task

4. Delete a task

5. Exit

Enter your choice: 1

Enter task title: TASK2

Enter task description: DESCRIPTION 2

Task created successfully.

Task List Application

1. Create a task

2. Read tasks

3. Update a task

4. Delete a task

5. Exit

Enter your choice: 2

Tasks:

1. TASK1 - DESCRIPTION 1

2. TASK2 - DESCRIPTION 2

Task List Application

1. Create a task

2. Read tasks

3. Update a task

4. Delete a task

5. Exit

Enter your choice: 3

Enter the index of the task to update: 0

Current task title: TASK1

Current task description: DESCRIPTION 1

Do you want to update the title? (Y/N)

Y

Enter new title: UPDATED TASK1

Do you want to update the description? (Y/N)

N

Task updated successfully.

Task List Application

1. Create a task

2. Read tasks

3. Update a task

4. Delete a task

5. Exit

Enter your choice: 2

Tasks:

1. UPDATED TASK1 - DESCRIPTION 1

2. TASK2 - DESCRIPTION 2

Task List Application

1. Create a task

2. Read tasks

3. Update a task

4. Delete a task

5. Exit

Enter your choice: 4

Enter the index of the task to delete: 2

Invalid index. Please try again.

Task List Application

1. Create a task

2. Read tasks

3. Update a task

4. Delete a task

5. Exit

Enter your choice: 4

Enter the index of the task to delete: 1

Task deleted successfully.

Task List Application

1. Create a task

2. Read tasks

3. Update a task

4. Delete a task

5. Exit

Enter your choice: 2

Tasks:

1. UPDATED TASK1 - DESCRIPTION 1

Task List Application

1. Create a task

2. Read tasks

3. Update a task

4. Delete a task

5. Exit

Enter your choice: 5 //Here it get’s exited