SUPERIOR UNIVERSITY

Artificial Intelligence (Lab)

Assignment - 1

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Department:

Software Engineering Department.

Program:

Artificial Intelligence.

Section:

BSAI-3A

Question # 1:

Any on the following:

Mini projects (lab 1 task):

1. Dynamic calculator (solving : 1+2×3(4-5÷4)-(3÷5))
2. To-Do list (Dynamic)
3. Tic tac toe (Dynamic)
4. Hangman (Dynamic) with printing hangman

Explanation:

In the following code, I have created a dynamic to-do list. It will take tasks continuously until the user exits the program. It have specific functions, add: to add a task to list, display: to display the whole list, remove: to remove a task from the list, update: to update a specific task in the list, menu: after that we have a menu with error handling for the user to select the option he wants to go with during the program.

Code:

Option 2: To-Do List (Dynamic)

```
class listing():
    def __init__(self):
        self.list1=[]


    def add(self):
        print("--- Adding to the list ---")
        task=input("Please enter the task: ").lower()
        self.list1.append(task)
        print(f"Task \"{task}\" has been added to the list.")


    def display(self):
        print("--- Displaying the list ---")
        if not self.list1:
```

```
        print("The list is empty.")
    else:
        print("The list contains the following tasks:")
        i=0
        for task in self.list1:
            i+=1
            print(f"{i}) {task}")

def remove(self):
    print("--- Removing from the list ---")
    task=input("Please enter the task: ").lower()
    if task not in self.list1:
        print(f"Task {task} is not in the list.")
    else:
        self.list1.remove(task)
        print(f"Task \"{task}\" has been removed from the list.")

def update(self):
    print("--- Updating the list ---")
    task=input("Please enter the task: ").lower()
    if task not in self.list1:
        print(f"Task \"{task}\" is not in the list.")
    else:
        new_task=input("Please enter the new task: ").lower()
        self.list1.remove(task)
        self.list1.append(new_task)
        print(f"Task \"{task}\" has been updated to \"{new_task}\".")
```

```
def to_do_list():
    obj1=listing()
    while True:
        print("--- This is a dynamic To-Do-List ---")
        print("-:Menu:-")
        print("1) Add task.")
        print("2) Display task.")
        print("3) Remove task.")
        print("4) Update task.")
        print("5) End program.")
        input1=int(input(f"Please select an option: "))
        if input1==1:
            print("Add task.")
            obj1.add()
        elif input1==2:
            print("Display task.")
            obj1.display()
        elif input1==3:
            print("Remove task.")
            obj1.remove()
        elif input1==4:
            print("Update task.")
            obj1.update()
        elif input1==5:
            print("End program.")
            break
```

```
        else:
            print("Invalid input, please try again.")


to_do_list()
```

Output:

```
E:\Uni\3rd Semester\2) Artificial Intelligence (Lab)\Assignments\Assignment 1>python task.py
--- This is a dynamic To-Do-List ---
-:Menu:-
1) Add task.
2) Display task.
3) Remove task.
4) Update task.
5) End program.
Please select an option: 1
Add task.
--- Adding to the list ---
Please enter the task: go home
Task go home has been added to the list.
```