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

Code:

Option 2: To-Do List (Dynamic)

```python
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
```

```python
        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:
```

```python
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.
```