Creating a simple to do list using python

Hey there, everyone! I'm Gaafer Astroinforamatics specialist & python devolper , Through this talk We are going to dive into areally cool coding project.

We'll establish a simple `To-Do List` application using python. This program allows you to add tasks, view tasks, mark tasks as done, and exit the list. It's a great way to keep track of your tasks and stay organized

Pre-requisites:

- Basic Python Knowledge: It's helpful to have a basic understanding of Python programming concepts like variables, loops, functions, and if statements
- Python Installed: Make sure you have Python installed on your computer. You can download it from the Link in Description.
- Text Editor or IDE: You'll need a text editor or integrated development environment (IDE) to write and run your Python code. Some popular options are Visual Studio Code, PyCharm, or even a simple text editor like Notepad.
- Curiosity and Enthusiasm: Most importantly, bring your curiosity and enthusiasm for coding. This project is a great way to have fun while learning and practicing Python.

Python Concepts Needed

- Conditional Statements
- Looping
- Function

First,We begin by defining a function called main(). This function will be the heart of our `To-Do List` program. Inside the function, we create an empty list called tasks. This list will hold all our tasks.

In [ ]:
```
def main():
    tasks = []
```

In [ ]:
```
while True:
        print("\n===== To-Do List =====")
        print("1. Add Task")
        print("2. Show Tasks")
        print("3. Mark Task as Done")
        print("4. Exit")

        choice = input("Enter your choice: ")
```

We use a while True loop to keep the program running until the user decides to exit. Inside the loop, we display a menu with four options:

- Add Task
- Show Tasks
- Mark Task as Done
- Exit

The user is prompted to enter their choice.

In [ ]:
```
if choice == '1':
            print()
            n_tasks = int(input("How may task you want to add: "))

            for i in range(n_tasks):
                task = input("Enter the task: ")
                tasks.append({"task": task, "done": False})
                print("Task added!")
```

If the user selects `option ‘1’`, they can add tasks to their `To-Do List`. The program asks how many tasks the user wants to add. Then, for each task, the user enters a description, and we add that task to our tasks list along with a status of “Not Done.”

In [ ]:
```
elif choice == '2':
            print("\nTasks:")
            for index, task in enumerate(tasks):
                status = "Done" if task["done"] else "Not Done"
                print(f"{index + 1}. {task['task']} - {status}")
```

If the user chooses `option ‘2’`, we display the list of tasks along with their statuses. We use a loop to go through each task and show its number, description, and whether it’s done or not.

In [ ]:
```
elif choice == '3':
            task_index = int(input("Enter the task number to mark as done: ")) - 1
            if 0 <= task_index < len(tasks):
                tasks[task_index]["done"] = True
                print("Task marked as done!")
            else:
                print("Invalid task number.")
```

Now, if the user picks `option ‘3’`, they can mark a task as done. They enter the task number they want to mark, and if the number is valid, we change the status of that task to `“Done.”`

In [ ]:
```
elif choice == '4':
     print("Exiting the To-Do List.")
     break

else:
     print("Invalid choice. Please try again.")
```

Finally, if the user goes with `option ‘4’`, we exit the To-Do List by breaking out of the loop.

FULL CODE:

In [ ]:

```python
def main():
    tasks = []

    while True:
        print("\n===== To-Do List =====")
        print("1. Add Task")
        print("2. Show Tasks")
        print("3. Mark Task as Done")
        print("4. Exit")

        choice = input("Enter your choice: ")

        if choice == '1':
            print()
            n_tasks = int(input("How may task you want to add: "))

            for i in range(n_tasks):
                task = input("Enter the task: ")
                tasks.append({"task": task, "done": False})
                print("Task added!")

        elif choice == '2':
            print("\nTasks:")
            for index, task in enumerate(tasks):
                status = "Done" if task["done"] else "Not Done"
                print(f"{index + 1}. {task['task']} - {status}")

        elif choice == '3':
            task_index = int(input("Enter the task number to mark as done: ")) - 1
            if 0 <= task_index < len(tasks):
                tasks[task_index]["done"] = True
                print("Task marked as done!")
            else:
                print("Invalid task number.")

        elif choice == '4':
            print("Exiting the To-Do List.")
            break

        else:
            print("Invalid choice. Please try again.")

if __name__ == "__main__":
    main()
```

```
===== To-Do List =====
1. Add Task
2. Show Tasks
3. Mark Task as Done
4. Exit
```

I'm defending my position as the best upcoming `Astroinformatics Specialist` In shaa Allah & **This is My LinkedIn profile Just a Tool to Flourish**

https://www.linkedin.com/in/gaafer-gouda-nasa

I'm participating as a Trainee at Digital Egypt Pioneers Initiative - DEPI , **Under Supervision of** Ministry of Communications and Information Technology (MCIT), Egypt **AI** & **Data Science** IBM. **I'm asking Allah always for more guidance** & **prosperity**

【Amidst Seniors,Ever present】

In [ ]: