Python

Assignment - 5

PRASATH S (24MCR077)

Case Study : Simple To-Do List Management System

```
import datetime

tasks = []

def
display_menu():
print("\nOptions:
")
    print("1. Add
Task")
    print("2.
Remove Task")
    print("3. View
Tasks")
    print("4. Exit")


def add_task():
    task_name =
input("Enter task
name: ").strip()
    if
any(task['name'].
lower() ==
task_name.lower
() for task in
tasks):
        print("Task
already exists!
Try a different
one.")
        return
    priority =
input("Enter task
priority
(High/Medium/L
ow):
```

").capitalize()

    timestamp =
datetime.datetim

```
e.now().strftime(
"%Y-%m-%d
%H:%M:%S")
    task = {
        'name':
task_name,
        'priority':
priority,
        'added_on':
timestamp
    }

tasks.append(tas
k)
    print("Task
added
successfully!")


def
remove_task():
    if not tasks:
        print("No
tasks to
remove.")
        return
    view_tasks()
    try:
        task_num =
int(input("Enter
the task number
to remove: "))
        if 1 <=
task_num <=
len(tasks):
            removed
=
tasks.pop(task_n
um - 1)

print(f"Removed
task:
'{removed['name'
]}'")
```

```
        else:
print("Invalid
task number.")
    except
ValueError:
print("Please
enter a valid
number.")

def view_tasks():
    if not tasks:
        print("No
pending tasks.")
        return
print("\nPending
Tasks:")
    for idx, task in
enumerate(tasks,
start=1):
print(f"{idx}.
{task['name']}
(Priority:
{task['priority']},
Added:
{task['added_on']
})")

def
run_todo_list():
print("Welcome
to the Simple To-
Do List
Manager!")
    while True:
display_menu()
        choice =
input("Choose an
```

```
option (1-4): ")

        if choice ==
'1':


add_task()

        elif choice
== '2':


remove_task()

        elif choice
== '3':


view_tasks()

        elif choice
== '4':


print("Goodbye!
Have a
productive day.")

            break

        else:


print("Invalid
option. Please
choose 1-4.")


if __name___==
"__main__":

    run_todo_list()
```