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1  ✓ import datetime
2    import random
3    from matplotlib import pyplot as plt
4
5    assignments = []
6
7  ✓ funny_messages = {
8      "high": ["Emergency! Finish it now!", "High-priority mission!", "Hurry, ASAP!"],
9      "medium": ["Medium task, keep on track!", "Focus, it waits!", "Keep an eye on this!"],
10     "low": ["Low-priority, you have time!", "Relax, do it later!", "Easy task, don't rush!"]
11  }
12
13 ✓ def calc_priority(due_date):
14    days = (due_date - datetime.date.today()).days
15    if days <= 1:
16        return "high"
17    if days <= 3:
18        return "medium"
19    return "low"
20
21 ✓ def add_assignment():
22    title = input("Enter assignment title: ").strip()
23    if not title:
24        return
25    subject = input("Enter subject: ").strip()
26    if not subject:
27        return
28    due_str = input("Enter due date (YYYY-MM-DD): ").strip()
29    try:
30        due_date = datetime.datetime.strptime(due_str, "%Y-%m-%d").date()
31    except:
32        print("Invalid date format!")
```

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31    except:
32        print("Invalid date format!")
33        return
34    priority = calc_priority(due_date)
35    assignments.append({"title": title, "subject": subject, "due_date": due_date,
36                        "priority": priority, "completed": False})
37    print(f"\n'{title}' added! Priority: {priority.upper()}")
38    print(random.choice(funny_messages[priority]))
39    input("\nPress Enter to return to menu...")
40
41 def show_schedule():
42     pending = [a for a in assignments if not a["completed"]]
43     if not pending:
44         print("\nNo pending assignments!")
45         input("\nPress Enter to return to menu...")
46         return
47     pending.sort(key=lambda x: (x["due_date"], x["priority"]))
48     print("\n--- Today's Schedule ---")
49     for a in pending:
50         days = (a["due_date"] - datetime.date.today()).days
51         print(f"{a['title']} ({a['subject']}) | Due in {days} days | Priority: {a['priority'].upper()}")
52         print(" " + random.choice(funny_messages[a['priority']])))
53     input("\nPress Enter to return to menu...")
54
55 def list_assignments():
56     print("\n--- All Assignments ---")
57     for idx, a in enumerate(assignments):
58         status = "Completed" if a["completed"] else "Pending"
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58     status = Completed if a['completed'] else Pending
59     print(f"{idx+1}. {a['title']} ({a['subject']}) | {status} | Priority: {a['priority'].upper()}")
60     input("\nPress Enter to return to menu...")
61
62 ✕ def mark_completed():
63     list_assignments()
64 ✕     try:
65         idx = int(input("\nEnter assignment number to mark completed: ")) - 1
66     ✕     if idx < 0 or idx >= len(assignments):
67         |     print("Invalid number!")
68         |     input("\nPress Enter to return to menu...")
69         |     return
70         assignments[idx]["completed"] = True
71         a = assignments[idx]
72         print(f"\n'{a['title']}' marked completed!")
73         print(random.choice(funny_messages[a['priority']])))
74     ✕ except:
75         |     print("Invalid input!")
76     input("\nPress Enter to return to menu...")
77
78 ✕ def show_stats():
79     total = len(assignments)
80     completed = sum(a["completed"] for a in assignments)
81     pending = total - completed
82     counts = {"high": 0, "medium": 0, "low": 0}
83     ✕ for a in assignments:
84     ✕     if not a["completed"]:
85         |     counts[a["priority"]] += 1
86
87     print(f"\n--- Stats ---")
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87     print(f"\n--- Stats ---")
88     print(f"Total: {total} | Completed: {completed} | Pending: {pending}")
89     print(f"High: {counts['high']} | Medium: {counts['medium']} | Low: {counts['low']}")"
90
91     plt.figure(figsize=(5, 5))
92     plt.bar(["High", "Medium", "Low"], [counts["high"], counts["medium"], counts["low"]],
93             color=[ "#8B0000", "#FF8C00", "#006400"])
94     plt.title("Pending Assignments by Priority")
95     plt.ylabel("Number of Assignments")
96     plt.show()
97
98     plt.figure(figsize=(5, 5))
99     plt.bar(["Completed", "Pending"], [completed, pending], color=[ "#006400", "#8B0000"])
100    plt.title("Completed vs Pending Assignments")
101    plt.ylabel("Number of Assignments")
102    plt.show()
103
104    input("\nPress Enter to return to menu...")
105
106    def main():
107        while True:
108            print("\n--- Due Date Ninja ---")
109            print("1. Add Assignment")
110            print("2. Show Schedule")
111            print("3. List Assignments")
112            print("4. Mark Completed")
113            print("5. Show Stats & Charts")
114            print("6. Exit")
115            choice = input("Choose an option: ").strip()
116            if choice == "1":
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```
117     |         add_assignment()
118     |     elif choice == "2":
119     |         show_schedule()
120     |     elif choice == "3":
121     |         list_assignments()
122     |     elif choice == "4":
123     |         mark_completed()
124     |     elif choice == "5":
125     |         show_stats()
126     |     elif choice == "6":
127     |         break
128     |     else:
129     |         print("Invalid choice!")
130     |         input("\nPress Enter to return to menu...")
131
132     v if __name__ == "__main__":
133     |     main()
134
```

--- Due Date Ninja ---

1. Add Assignment
2. Show Schedule
3. List Assignments
4. Mark Completed
5. Show Stats & Charts
6. Exit

Choose an option: