

Untitled2.ipynb

```
import csv
FILE_NAME = "students.csv"

# Create the file with header if not present
def initialize_file():
    try:
        with open(FILE_NAME, 'x', newline='') as file:
            writer = csv.writer(file)
            writer.writerow(["Roll No", "Name", "Marks1", "Marks2", "Marks3", "Total", "Percentage", "Grade"])
    except FileExistsError:
        pass

def calculate_grade(percentage):
    if percentage > 90:
        return "A+"
    elif percentage >= 80:
        return "A"
    elif percentage >= 70:
        return "B"
    elif percentage >= 60:
        return "C"
    elif percentage >= 50:
        return "D"
    else:
        return "F"

def add_student():
    roll = input("Enter Roll Number: ")
    name = input("Enter Student Name: ")
    m1 = float(input("Enter Marks 1 (out of 100): "))
    m2 = float(input("Enter Marks 2 (out of 100): "))
    m3 = float(input("Enter Marks 3 (out of 100): "))

    total = m1 + m2 + m3
    #marks percentage
    percentage = total / 3
    #calling calculate_grade to find grade of the student
    grade = calculate_grade(percentage)

    with open(FILE_NAME, 'a', newline='') as file:
        writer = csv.writer(file)
        writer.writerow([roll, name, m1, m2, m3, total, percentage, grade])

    print("Student record added successfully!\n")

def view_all_students():
    try:
        with open(FILE_NAME, 'r') as file:
            reader = csv.reader(file)
            for row in reader:
                print(row)
    except FileNotFoundError:
        print("No student records found!\n")

def search_student():
    roll = input("Enter Roll Number to search: ")
    found = False

    try:
        with open(FILE_NAME, 'r') as file:
            reader = csv.reader(file)
            for row in reader:
                if row[0] == roll:
                    print(row)
                    found = True
    except FileNotFoundError:
        print("No student records found!\n")
```

Untitled2.ipynb

```
m2 = float(input("Enter Marks 2 (out of 100): "))
m3 = float(input("Enter Marks 3 (out of 100): "))

total = m1 + m2 + m3
#marks percentage
percentage = total / 3
#calling calculate_grade to find grade of the student
grade = calculate_grade(percentage)

with open(FILE_NAME, 'a', newline='') as file:
    writer = csv.writer(file)
    writer.writerow([roll, name, m1, m2, m3, total, percentage, grade])

print("Student record added successfully!\n")

def view_all_students():
    try:
        with open(FILE_NAME, 'r') as file:
            reader = csv.reader(file)
            for row in reader:
                print(row)
    except FileNotFoundError:
        print("No student records found!\n")

def search_student():
    roll = input("Enter Roll Number to search: ")
    found = False

    try:
        with open(FILE_NAME, 'r') as file:
            reader = csv.reader(file)
            for row in reader:
                if row[0] == roll:
                    print(row)
                    found = True
    except FileNotFoundError:
        print("No student records found!\n")
```

The screenshot shows a Jupyter Notebook interface with a dark theme. The title bar reads "Untitled2.ipynb". The menu bar includes File, Edit, View, Insert, Runtime, Tools, and Help. Below the menu is a toolbar with search, command, code, text, and run all buttons. The main area contains Python code for a student result management system. The code uses CSV files for data storage and implements a menu-based interface with options for adding, viewing, searching, and exiting.

```
with open(FILE_NAME, 'r') as file:
    reader = csv.reader(file)
    for row in reader:
        if row[0] == roll:
            print("Student Found:")
            print(row)
            found = True
            break

    if not found:
        print("Student not found!\n")

except FileNotFoundError:
    print("No records available!\n")

def main():
    initialize_file()

    while True:
        print("----- Student Result Management -----")
        print("1. Add Student Result")
        print("2. View All Students")
        print("3. Search Student by Roll No")
        print("4. Exit")

        choice = input("Enter your choice: ")

        if choice == '1':
            add_student()
        elif choice == '2':
            view_all_students()
        elif choice == '3':
            search_student()
        elif choice == '4':
            exit()

    
```

This screenshot shows the same Jupyter Notebook interface as the first one, but with a different visual style. The title bar and menu bar are identical. The code in the notebook is the same, implementing a student result management system with a menu-based interface for adding, viewing, and searching student records.

```
with open(FILE_NAME, 'r') as file:
    reader = csv.reader(file)
    for row in reader:
        if row[0] == roll:
            print("Student Found:")
            print(row)
            found = True
            break

    if not found:
        print("Student not found!\n")

except FileNotFoundError:
    print("No records available!\n")

def main():
    initialize_file()

    while True:
        print("----- Student Result Management -----")
        print("1. Add Student Result")
        print("2. View All Students")
        print("3. Search Student by Roll No")
        print("4. Exit")

        choice = input("Enter your choice: ")

        if choice == '1':
            add_student()
        elif choice == '2':
            view_all_students()
        elif choice == '3':
            search_student()
        elif choice == '4':
            exit()

    
```

Untitled2.ipynb

File Edit View Insert Runtime Tools Help

Commands + Code + Text Run all Connect

```
print("1. Add Student Result")
print("2. View All Students")
print("3. Search Student by Roll No")
print("4. Exit")

choice = input("Enter your choice: ")

if choice == '1':
    add_student()
elif choice == '2':
    view_all_students()
elif choice == '3':
    search_student()
elif choice == '4':
    print("Thank you! Exiting...")
    break
else:
    print("Invalid option! Try again.\n")

if __name__ == "__main__":
    main()

... ----- Student Result Management -----
1. Add Student Result
2. View All Students
3. Search Student by Roll No
4. Exit
Enter your choice: 4
Thank you! Exiting...
```

Untitled2.ipynb ★ Saving... File Edit View Insert Runtime Tools Help Share RAM Disk

```
4. Exit  
Enter your choice: 1  
...  
Enter Roll Number: 2  
Enter Student Name: AASHU  
Enter Marks 1 (out of 100): 99  
Enter Marks 2 (out of 100): 97  
Enter Marks 3 (out of 100): 96  
Student record added successfully!  
----- Student Result Management -----  
1. Add Student Result  
2. View All Students  
3. Search Student by Roll No  
4. Exit  
Enter your choice: 1  
Enter Roll Number: 3  
Enter Student Name: AYUSH  
Enter Marks 1 (out of 100): 100  
Enter Marks 2 (out of 100): 92  
Enter Marks 3 (out of 100): 94  
Student record added successfully!  
----- Student Result Management -----  
1. Add Student Result  
2. View All Students  
3. Search Student by Roll No  
4. Exit  
Enter your choice: 2  
['Roll No', 'Name', 'Marks1', 'Marks2', 'Marks3', 'Total', 'Percentage', 'Grade']  
[ '2', 'AASHU', '99.0', '97.0', '96.0', '292.0', '97.33333333333333', 'A+' ]  
[ '3', 'AYUSH', '100.0', '92.0', '94.0', '286.0', '95.33333333333333', 'A+' ]  
----- Student Result Management -----  
1. Add Student Result  
2. View All Students
```

Untitled2.ipynb ★ File Edit View Insert Runtime Tools Help Share RAM Disk

```
Variables Terminal ✓ 10:51PM Python 3
```

```
Student record added successfully!  
...  
----- Student Result Management -----  
1. Add Student Result  
2. View All Students  
3. Search Student by Roll No  
4. Exit  
Enter your choice: 2  
['Roll No', 'Name', 'Marks1', 'Marks2', 'Marks3', 'Total', 'Percentage', 'Grade']  
[ '2', 'AASHU', '99.0', '97.0', '96.0', '292.0', '97.33333333333333', 'A+' ]  
[ '3', 'AYUSH', '100.0', '92.0', '94.0', '286.0', '95.33333333333333', 'A+' ]  
----- Student Result Management -----  
1. Add Student Result  
2. View All Students  
3. Search Student by Roll No  
4. Exit  
Enter your choice: 3  
Enter Roll Number to search: 2  
Student Found:  
[ '2', 'AASHU', '99.0', '97.0', '96.0', '292.0', '97.33333333333333', 'A+' ]  
----- Student Result Management -----  
1. Add Student Result  
2. View All Students  
3. Search Student by Roll No  
4. Exit  
Enter your choice: 3  
Enter Roll Number to search: 66  
Student not found!  
----- Student Result Management -----  
1. Add Student Result  
2. View All Students  
3. Search Student by Roll No  
4. Exit
```