

## 1. Calculator Minor Project

- A menu is provided wherein the user can choose one of the following options to perform :
  - Addition
  - Subtraction
  - Multiplication
  - Division
  - Exponential
  - Logarithm
  - Trigonometric Ratios
- The program asks for input from the user and performs the specified function and returns the output .
- The program also asks the user if he wants the output to be rounded off as Yes or No :
  - If the user choses “Yes” , then the prompt will ask the number of digits to round off and then returns the rounded off output.
  - Else if the user choses “No” , then the program will return the original output without rounding off.
- The trigonometric function asks for the value of angle first , and then asks for DEGREES OR RADIANS, according to which the ratios will be applied.

### 1. Addition Program (for example):

```
WELCOME TO CALCULATOR 🇮🇳

WHAT HELP DO YOU NEED?? 🔑

1.PERFORM ADDITION
2.PERFORM SUBTRACTION
3.PERFORM DIVISON
4.PERFORM MULTIPLICATION
5.FIND EXPONENT
6.FIND LOG
7.TRIGONOMETRIC FUNCTIONS

Enter your choice number: 1

enter the qty. of numbers you want to add: 3

enter your number: 12

enter your number: -9

enter your number: 0.45

The Sum of your numbers [12.0, -9.0, 0.45] is: 3.45

THANK YOU FOR USING OUR SERVICES 😊.....
```

## 2. Multiplication Program

```
WELCOME TO CALCULATOR 🇺🇸  
  
WHAT HELP DO YOU NEED?? 🔧  
  
1.PERFORM ADDITION  
2.PERFORM SUBTRACTION  
3.PERFORM DIVISON  
4.PERFORM MULTIPLICATION  
5.FIND EXPONENT  
6.FIND LOG  
7.TRIGONOMETRIC FUNCTIONS  
  
Enter your choice number: 4  
  
Enter the first number: 34.45  
Enter the second number: 65.44  
The Product of the numbers 34.45 and 65.44 is: 2254.408  
  
DO YOU WANT TO ROUND THE Product OFF??  
Enter Yes or No: Yes  
Enter the number of decimal places you want to round it off to: 2  
Your Product is: 2254.41  
  
THANK YOU FOR USING OUR SERVICES 😊.....
```

### 3. Trigonometric Ratios

```
WELCOME TO CALCULATOR 📊

WHAT HELP DO YOU NEED?? 🔑

1.PERFORM ADDITION
2.PERFORM SUBTRACTION
3.PERFORM DIVISON
4.PERFORM MULTIPLICATION
5.FIND EXPONENT
6.FIND LOG
7.TRIGONOMETRIC FUNCTIONS

Enter your choice number: 7

YOU CAN FIND ALL 6 TRIGONOMETRIC RATIOS HERE:

Enter the value of angle :90

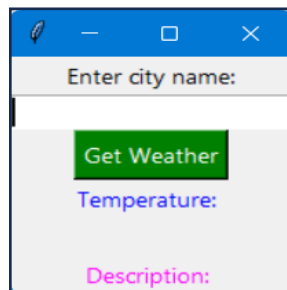
Do you want to work with DEGREES or RADIANS??: DEGREES

sin(90.0) = 1.0
cos(90.0) = 0.0
tan(90.0) = 1.633123935319537e+16
cosec(90.0) = 1.0
sec(90.0) = 1.633123935319537e+16
cot(90.0) = 0.0
```

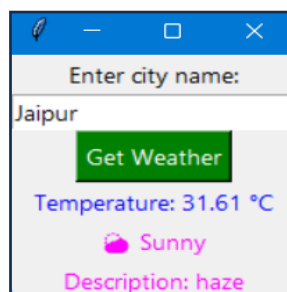
## 2. Weather App Minor Project

- This Python program is a simple weather application that allows users to input a city name, fetch weather data from the OpenWeatherMap API, and display the temperature, weather description, and an emoji representing the weather condition. The application is built using the Tkinter library for the graphical user interface (GUI) and utilizes the requests library to make API requests to OpenWeatherMap.
- Major components of the program are –
  - Importing the required libraries such as Tkinter,requests.
  - Setting the OpenWeatherMap API key.
  - Define a function to fetch weather data and update the GUI.
  - Create the GUI elements such as app window, labels entry fields and buttons.
  - Start the Tkinter main event loop.
- Program working:

1.



2.



### 3. Job Application Tracker Major Project

- Libraries used :

- simple\_colors
- webbrowser
- pandas
- time
- plyer.notification
- numpy
- tkinter
- ttk

- Code Working :

1. The code starts by importing the necessary libraries and defining the data for available job positions in a dictionary.
2. A DataFrame (db) is created from the job data, which will be used to filter and display job recommendations to the user.
3. The code then creates a graphical user interface (GUI) using the tkinter library. This GUI is a form that collects user information, including their name, experience, skills, job profile, company name, expected salary, and preferred cities for the job.
4. The GUI form is styled using the ttk styles for consistent appearance.
5. Various widgets like labels, entry fields, combo boxes, and check buttons are created to input user data. These widgets are organized and packed into the form.
6. Users can also add multiple skills by clicking the "+ Add Skill" button, which dynamically adds skill entry fields to the form.
7. There's an option to upload a resume in PDF format using the "Upload Resume (PDF)" button.
8. When the user clicks the "Capture Data" button, the entered data is captured and stored in the captured\_data list.
9. After capturing data, a notification is displayed to indicate that the user's application has been accepted, and the system is searching for jobs.
10. The code then displays the captured user data and recommends job positions based on the user's job profile. It prints the relevant job listings from the DataFrame (db) based on the user's selected job profile.

## 1. Database

S.No	Company Name	Job Role	Exp. Required (in yrs)	Salary (per annum)	Job Location	Links
0	1	Atlassian	SDE	0-5	800000	Bangalore <a href="https://www.atlassian.com/company/careers/all-...">https://www.atlassian.com/company/careers/all-...</a>
1	2	Indie MicroTech	Tech Lead	4-10	1500000	Noida <a href="https://www.microtekdirect.com/">https://www.microtekdirect.com/</a>
2	3	Cent Media	Front End Developer	2-5	600000	Pune <a href="https://centsmedialtd.com/about-us/">https://centsmedialtd.com/about-us/</a>
3	4	TCS	Executive	2-5	400000	Noida <a href="https://www.tcs.com/careers">https://www.tcs.com/careers</a>
4	5	Wipro	SDE	0-5	450000	Mumbai <a href="https://careers.wipro.com/careers-home/">https://careers.wipro.com/careers-home/</a>
5	6	Amazon	FullStack Lead	5-10	2000000	Gurugram <a href="https://www.amazon.jobs/">https://www.amazon.jobs/</a>
6	7	Cognizant	Data Analyst	3-10	600000	Bangalore <a href="https://careers.cognizant.com/global/en">https://careers.cognizant.com/global/en</a>
7	8	JP Morgan	Data Analyst	5-10	2200000	Pune <a href="https://careers.jpmorgan.com/in/en/home">https://careers.jpmorgan.com/in/en/home</a>
8	9	HCL	Junior Engineer	0-3	400000	Mumbai <a href="https://www.hcltech.com/careers">https://www.hcltech.com/careers</a>
9	10	Byjus	Sales Executive	2-5	1200000	Noida <a href="https://byjus.com/careers-at-byjus/">https://byjus.com/careers-at-byjus/</a>

2. Form to store User information

**Data Capture**

**Name:**  
John Keats

**Experience (in years):**  
7

**Skills:**

+ Add Skill

Python

My SQL

**Job Profile:**  
Data Analyst

**Company Name:**  
JP Morgan

**Expected Salary:**  
1500000

**City:**

☒ Bangalore

☐ Mumbai

☒ Pune

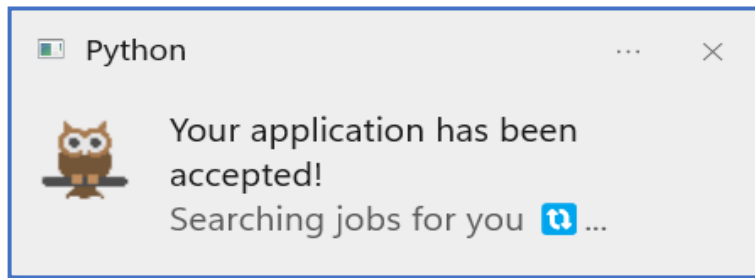
☒ Gurugram

☐ Noida

Upload Resume (PDF)

Capture Data

### 3. Notification on successful registration





4. Entered Data is matched with the database and similar job positions are displayed along with site link.

Resume uploaded: C:/Users/Yash/OneDrive/Desktop/monika dl .pdf  
Data captured: {'Name': 'John Keats', 'Experience': '7', 'Skills': ['Python', 'My SQL'], 'Job Profile': 'Data Analyst', 'Company Name': 'JP Morgan', 'Expected Salary': '1500000', 'Cities': ['Bangalore', 'Pune', 'Gurugram']}

Captured Data: [{'Name': 'John Keats', 'Experience': '7', 'Skills': ['Python', 'My SQL'], 'Job Profile': 'Data Analyst', 'Company Name': 'JP Morgan', 'Expected Salary': '1500000', 'Cities': ['Bangalore', 'Pune', 'Gurugram']}]

HEY John Keats !

EXPERIENCE: 7  
SKILLS: ['Python', 'My SQL']  
JOB PROFILE: Data Analyst  
COMPANY NAME : JP Morgan  
EXPECTED SALARY: 1500000  
CITIES: ['Bangalore', 'Pune', 'Gurugram']

We found these jobs for you:

S.No	Company Name	Job Role	Exp. Required (in yrs)	Salary (per annum) \
7	8	JP Morgan	Data Analyst	5-10 2200000
Job Location		Links		
7	Pune	<a href="https://careers.jpmorgan.com/in/en/home">https://careers.jpmorgan.com/in/en/home</a>		
S.No	Company Name	Job Role	Exp. Required (in yrs)	\
8	9	HCL	Junior Engineer	0-3
Salary (per annum)	Job Location	Links		
8	400000	Mumbai	<a href="https://www.hcltech.com/careers">https://www.hcltech.com/careers</a>	