Lab#01
Artificial Intelligence

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Lab Objectives:

- Introduction to Python
- Introduction to Anaconda Prompt and Navigator
- To Understand Interface of Jupyter Notebook
- To Understand print() function in Python
- To Understand variables and Data Types in Python
- To Use type() function in python
- To Understand Arithmetic and Relational Operators
- To Understand bin() function in python
- To Understand ** and // in python
- To Understand if-else, elif statement
- To Solve Different Problems using the above concepts

What is Python?

Python is a high-level, interpreted programming language that is widely used for various purposes, such as:-

- Web development
- Scientific computing
- Data analysis
- Artificial intelligence (AI)
- Machine learning (ML)
- Automation
- Education

Why use Python for AI?

Easy to learn: Python has a simple syntax and is relatively easy to learn, making it accessible to developers from various backgrounds

Extensive libraries: Python has a vast collection of libraries and frameworks, such as TensorFlow, Keras, PyTorch, and scikit-learn, that provide efficient and effective tools for building AI and ML models

Large community: Python has a massive and active community, ensuring there are plenty of resources, tutorials, and pre-built functions available for AI and ML development. development.

Integration: Python can easily integrate with other languages and tools, such as R, Julia, and MATLAB, allowing for a seamless workflow

Anaconda

Anaconda is a popular open-source platform for data science and machine learning. It includes a package manager called

conda and a distribution of Python (and R) with many pre-installed libraries and tools

Installation of Anaconda Prompt

- https://www.anaconda.com/download

Commands to use in Anaconda Prompt

conda info

python --version

jupyter notebook

LAB TASKS

1. Write python code to:
   - Take input of age in years and convert it into hours

2. Write python code to calculate area of circle

3. Write python code to take input temperature in Celsius and convert it into Fahrenheit