

1. Define artificial intelligence (AI) and provide examples of its applications.

Artificial Intelligence (AI) refers to the simulation of human intelligence processes by machines, particularly computer systems. These processes include learning, reasoning, problem-solving, perception, and understanding natural language.

examples: 1. machine learning 2. Natural language processing. 3. Computer vision. 4. Robotics. 5. Deep learning. 6. Gaming.

2. Difference between supervised and unsupervised learning techniques in ML.

Supervised: mode of training with labelled data 1. Regression

Unsupervised: mod of training with unlabelled data 1. Clustering

3. What is python? Discuss its main features and advantages.

Python is a high-level, interpreted programming language known for its simplicity, readability, and versatility

FEATURES AND ADVANTAGES 1. Readability and Simplicity 2. Dynamic Typing 3. Extensive Standard Library 4. Platform Independent 5. Versatility

4. What are the advantages of using python as a programming language for AI and ML?

Python is widely regarded as one of the best programming languages for artificial intelligence and machine learning. ADVANTAGES: 1. Rich ecosystem of libraries 2. Support of data handling 3. Flexibility and interoperability 4. Community and Support

5. Discuss the importance of indentation in python code.

Indentation plays a crucial role in Python code as it is used to define the structure and logic of the code. Here are several reasons why indentation is important in Python: 1. code debugging 2. syntax requirement 3. Avoid ambiguity 4. block structure

Double-click (or enter) to edit

6. Define a variable in python. Provide examples for valid variable names?

Variables are used to store and manipulate data.

examples:

ex1: age=23 print(age)

keyboard_arrow_down

integer variable

ex2: height=1.56 print(height)

float variable

ex3: name="vishnu" print(name)

string variable

etc...

7.Explain the difference between keyword and an identifier in python?

keywords and identifiers are fundamental concepts

1. keywords are reserved words in a programming language that have special meanings and used to define the structure and logic of a program. ex: if, else, for, while, class etc.

identifiers: identifiers are user define names given to various program elements such as variables, functions, classes, etc. They are used to represent data or code elements and help make the program more readable ex: calculate area, employee
There are some rules for identifiers.

8.List the basic datatype available in python?

There are several datatypes are available in python. they are: 1.integer 2.float 3.string 4.boolean 5.list 6.tuple 7.dictionary 8.set

9.Describe the syntax for an if statement in python?

if statement in python which allows to execute a block of statement with a specific condition syntax: if condition statement1 statement2

the statement begins with if keyword if the condition is true the statement will execute and if false then the code block will skip.

10.Explain purpose of the elif statement in python?

else if which indicates the alternative for if statement for multiple conditions in a sequence

which is clear and more readable 1. sequential condition checking 2. efficiency 3. avoiding multiple if statements.