

There are basically four programming paradigms in programming languages:

- 1) Imperative programming languages
- 2) Functional programming languages
- 3) Logic programming languages
- 4) Object-oriented programming languages

Others are:

- 5) Event-Driven programming languages
- 6) Concurrent / parallel programming languages
- 7) Special purpose programming languages

1) Imperative programming languages:

It is also known as procedural languages.

An imperative language uses a sequence of statements to determine how to reach a certain goal. Means here you will get the answer how to do a task not what to do.

For example in C,

```
int a = 4;  
int b = 5;  
int sum = 0;  
sum = a + b;
```

From assigning values to each variable to the final addition of those values, each statement

changes the state of the program. Using a sequence of five statements the program shows how to add the numbers 4 and 15.

Example of Imperative language is: C, C++

2) Functional programming languages:

It is also known as applicative languages.

Functional programming is a form of declarative programming (mathematical function).

Programming consists of building the function that computes the answer.

There are two types:

1. Pure Functional languages: It supports only functional paradigm. Ex. Haskell.
2. Impure Functional languages: It supports both functional and imperative paradigm. Ex. Lisp.

Example of Functional language is: Lisp, Python, Haskell.

3) Logic programming languages:

This type of languages concentrate on what is the expected outcome for the program instead of how the outcome is achieved.

Logical programming is something like math. Logic program statements express facts and rules about problems.

To understand the rules, let's take an example like, "A is true if B and C is true".

And to understand facts we can say that "A is true".

Example of Logic language is: Prolog.

4) Object-oriented programming languages:

Object oriented programming language based on object instead of just functions and procedures. It involves concepts of oops programming languages.

For example: C++, Java.

5) Event Driven programming languages:

These languages are execute various operations based on user activities like mouse click and other events.

For example: Visual Basic, Java.

6) Concurrent or Parallel programming languages:

These are used to build various distributed programs.

For example: SR, Linda.

7) Special purpose programming languages:

These programming languages are used for special task.

For example: SQL, HTML.

Related Posts:

1. Sequence Control & Expression | PPL
2. PPL:Named Constants
3. Parse Tree | PPL | Prof. Jayesh Umre
4. Basic elements of Prolog
5. Loops | PPL | Prof. Jayesh Umre
6. Subprograms Parameter passing methods | PPL | Prof. Jayesh Umre
7. Programming Paradigms | PPL | Prof. Jayesh Umre
8. Subprograms Introduction | PPL | Prof. Jayesh Umre
9. Phases of Compiler | PPL | Prof. Jayesh Umre
10. Parse Tree | PPL
11. Influences on Language design | PPL | Prof. Jayesh Umre
12. Fundamentals of Subprograms | PPL | Prof. Jayesh Umre
13. Influences on Language Design
14. Language Evaluation Criteria
15. OOP in C++ | PPL
16. OOP in C# | PPL
17. OOP in Java | PPL
18. PPL: Abstraction & Encapsulation
19. PPL: Semaphores
20. PPL: Introduction to 4GL
21. PPL: Variable Initialization
22. PPL: Conditional Statements
23. PPL: Array
24. PPL: Strong Typing
25. PPL: Coroutines
26. PPL: Exception Handler in C++

27. PPL: OOP in PHP
28. PPL: Character Data Type
29. PPL: Exceptions
30. PPL: Heap based storage management
31. PPL: Primitive Data Type
32. PPL: Data types
33. Programming Environments | PPL
34. Virtual Machine | PPL
35. PPL: Local referencing environments
36. Generic Subprograms
37. Local referencing environments | PPL | Prof. Jayesh Umre
38. Generic Subprograms | PPL | Prof. Jayesh Umre
39. PPL: Java Threads
40. PPL: Loops
41. PPL: Exception Handling
42. PPL: C# Threads
43. Pointer & Reference Type | PPL
44. Scope and lifetime of variable
45. Design issues for functions
46. Parameter passing methods
47. Fundamentals of sub-programs
48. Subprograms
49. Design issues of subprogram
50. Garbage Collection
51. Issues in Language Translation
52. PPL Previous years solved papers
53. Type Checking | PPL | Prof. Jayesh Umre

- 54. PPL RGPV May 2018 solved paper discussion| Prof. Jayesh Umre
- 55. PPL Viva Voce
- 56. PPL RGPV June 2017 Solved paper | Prof. Jayesh Umre
- 57. Concurrency
- 58. Basic elements of Prolog
- 59. Introduction and overview of Logic programming
- 60. Application of Logic programming
- 61. PPL: Influences on Language Design
- 62. Language Evaluation Criteria PPL
- 63. PPL: Sequence Control & Expression
- 64. PPL: Programming Environments
- 65. PPL: Virtual Machine
- 66. PPL: Programming Paradigm
- 67. PPL: Pointer & Reference Type
- 68. try-catch block in C++