

Certificate in Computer Application (CCA)

Assessment-01

CCA101-Fundamental of I.T. & Programming

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Programming involves activities such as analysis, developing understanding, generating algorithms, verification of requirements of algorithms including their correctness and resources consumption, and implementation (commonly referred to as coding) of algorithms in a target programming language

Variable Declaration. Basic Syntax. Data Type and Structures. Flow Control Structures (Conditionals and loops) Functional Programming. Programs are designed using common building blocks.

There are three basic building blocks to consider:

- Sequence is the order in which instructions occur and are processed.
- Selection determines which path a program takes when it is running.
- Iteration is the repeated execution of a section of code when a program is running.

There are four primary elements for information technology as a whole: **information security, database and network management, computer technical support, and business software development.**

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- Data: constants, variables.
- Input reading of values from input devices (keyboard, I/O. ...
- Output: writing of information to any output device (screen, ...
- Operations: comparing values, assigning values, combining. ...
- Conditions / Selections: If-Then-Else, Case, Switches.

The 5 Basic Coding Concepts

- Variables. As the foundation of any computer programming language, variables act as “containers” that “hold” information. ...
- Data Structures. Data structures allow programmers to streamline data collection when a large amount of related information is involved. ...
- Control Structures. ...
- Syntax. ...
- Tools.

4 types of Programming Language that are classified are:

- Procedural Programming Language.
- Functional Programming Language.
- Scripting Programming Language.
- Logic Programming Language.
- Object-Oriented Programming Language.
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Most modern computer languages recognize five basic categories of data types: **Integral, Floating Point, Character, Character String, and composite types**, with various specific subtypes defined within each broad category.

Python. Python is always recommended if you're looking for an easy and even fun programming language to learn first. Rather than having to jump into strict syntax rules, Python reads like English and is simple to understand for someone who's new to programming.

SQL stands for Structured Query Language, which is a **programming language** used to communicate with relational databases.

What you're looking at right now is HTML code, read and interpreted by your browser. But this **doesn't make HTML a programming language**. HTML is a type of markup language. It encapsulates, or “marks up” data within HTML tags, which define the data and describe its purpose on the webpage.

There are three data types in C++ which are **primitive data types, abstract data types, and derived data types**. Primitive data types include integer, floating-point, character, Boolean, double floating-point, valueless or void, and wide character.

It's also the world's most widely used programming language. Excel formulas are written by an order of magnitude more users than all the C, C++, C#, Java, and Python programmers in the world combined. Despite its success, considered as a programming language Excel has fundamental weaknesses.