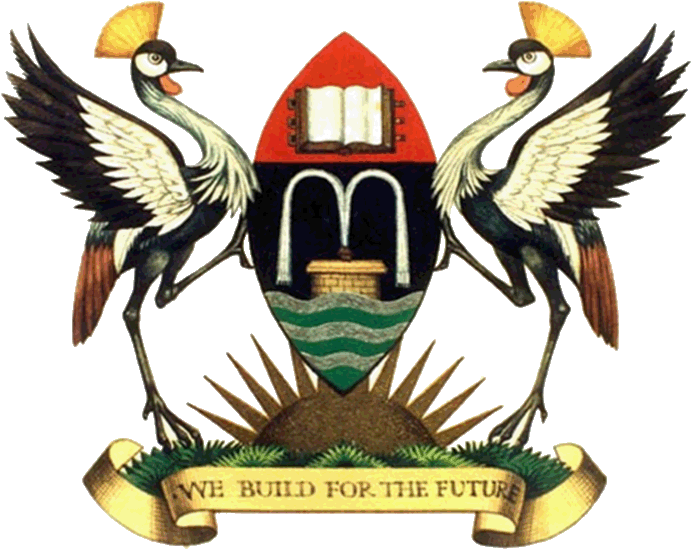
**MAKERERE UNIVERSITY**



**COLLEGE OF COMPUTING AND INFORMATICS TECHNOLOGY**

**PRINCIPLES OF PROGRAMMING LANGUAGES**

**CSC 3112**

**COURSE WORK ONE**

**LECTURE: MARRIETTE**

**GROUP MEMBERSHIP**

|  |  |  |  |
| --- | --- | --- | --- |
| **SNo** | **NAMES** | **REGISTRATION NUMBER** | **STUDENT NUMBER** |
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**NUMBER ONE**

The following are the programming languages that would be suitable for developing a solution for our final year project: -

* JAVA programming language
* PYTHON programming language
* C++ programming language
* Java script

The best fit is Java programming language because of the following reasons: -

What programming languages would be suitable for developing a solution for your final year project? Which is the best fit? Give reasons for your answer in both cases.

**NUMBER TWO**

The following are the types of programming paradigms that exist: -

* Imperative
* Declarative
* Structured
* Procedural
* Functional (Applicative)
* Function-Level
* Object-Oriented

Examples of programming languages and problem domain areas fit for each paradigm identified include the following: -

**Object-oriented paradigms**

This a kind of paradigm which involves working with instances of the programming construct in a blue print called class.

Example of programming languages under this paradigm include: -

* Java programming language
* C++ programming language
* Python
* Java script
* PHP
* C# (Csharp)
* Perl

Examples of problem domains favored by this paradigm: -

* Scientific applications.
* Business application

**Procedural paradigms**

Examples of programming languages under this paradigm include: -

* C programming language
* Perl
* PHP
* Pascal.

Example of problem domain for this paradigm include: -

* Business applications.
* Hospital based applications
* Systems programming to create operating systems.
* Scientific application
* Web software development.

**Logic and constraint based programming paradigm**

Example of programming languages include:

* Prolog
* GHC
* Parlog,
* Vulcan
* Polka
* Mercury
* Fnil.

Problem domain for this paradigm include: -

* Artificial intelligence.

**Functional programming paradigm**

Examples of programming languages: -

* Scheme
* Haskell
* Miranda
* ML.

Example of problem domain.

**Structured paradigm**

This is a kind of imperative programming which involves control flow defined by nested loops, conditionals, and subroutines, rather than via go tos. Variables are generally local to blocks (have lexical scope).

Example of programming languages:

C programming language

**Web based programming paradigm.**