**DAILY ASSESSMENT FORMAT**

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| **Date:** | **22/06/2020** | **Name:** | **Kirt B S** |
| **Course:** | **C++ Programming** | **USN:** | **4AL18EC026** |
| **Topic:** | * **Basic Concepts** * **Conditionals and Loops** | **Semester & Section:** | **4th sem ‘A’ section.** |
| **Github Repository:** | **Kirti BS** |  |  |

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| **FORENOON SESSION DETAILS** |
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| **REPORT**  **In today’s session I have learnt about:**  **Chapter 1: Basic Concepts**   * **What is C++**   **C++ is a general-purpose programming language. C++ is used to create computer programs. Anything from art applications, music players and even video games!**   * **Hello, World!**   **A C++ program is a collection of commands or statements. Below is a simple code that has "Hello world!" as its output.**  **#include <iostream> using namespace std; int main() { cout << "Hello world!"; return 0; }**   * **Getting the Tools**   **The following components to build C++ programs.**  **1.) Integrated Development Environment (IDE): Provides tools for writing source code. Any text editor can be used as an IDE.**  **2.) Compiler: Compiles source code into the final executable program. There are a number of C++ compilers available. The most frequently used and free available compiler is the GNU C/C++ compiler.**  **Printing a Text:**  **We can add multiple insertion operators after cout.**  **cout << "This " << "is " << "awesome!";**  **Output: This is awesome!**   * **Variables**   **A variable provides us with named storage that our programs can manipulate. Each variable in C++ has a specific type, which determines the size and layout of the variable's memory; the range of values that can be stored within that memory;**  **and the set of operations that can be applied to the variable.**   * **Working with Variables**   **Declaring (Creating) Variables**  **type variable = value; Where type is one of C++ types (such as int ), and variable is the name of the variable (such as x or myName). The equal sign is used to assign values to the variable.**   * **More on Variables** * **int: These type of variables holds integer value.** * **char: holds character value like ‘c’, ‘F’, ‘B’, ‘p’, ‘q’ etc.** * **bool: holds boolean value true or false.** * **double: double-precision floating point value.** * **float: Single-precision floating point value.** * **Basic Arithmetic**   **C++ uses operators to do arithmetic. It provides operators for five basic arithmetic calculations: addition, subtraction, multiplication, division, and taking the modulus. Each of these operators uses two values (called operands) to calculate a final answer.**   * **Assignment and Increment Operators**   **The increment operator is used to increase an integer value by one, and is a commonly used C++ operator. The increment operator has two forms, prefix and postfix. Prefix: Prefix increments the value, and then proceeds with the expression. Postfix: Postfix evaluate the expression and then performs the increment.**  **Chapter 2: Conditionals and Loops**   * **[The if Statement](https://www.sololearn.com/Play/CPlusPlus)**   **Syntax :** **If(TRUE)**  **Execute the next statement**  **Eg : if(5<10)**  **cout<<”Five is now less than ten, “that’s a big surprise”;**   * **[The else Statement](https://www.sololearn.com/Play/CPlusPlus)**   **Sometimes when the condition in an if statement evaluates to false, it would be nice to execute some code instead of the code executed when the statement**  **evaluates to true. The "else" statement effectively says that whatever code after it (whether a single line or code between brackets) is executed if the if statement is FALSE.**   * **[The while Loop](https://www.sololearn.com/Play/CPlusPlus)**     **The syntax of a while loop in C++ is − while(condition) { statement(s); } Here, statement(s) may be a single statement or a block of statements. The condition may be any expression, and true is any non-zero value. The loop iterates while the condition is true.**   * **Using a while Loop**   **Syntax : for (initialization; condition; update)**  **{**  **//body of the loop**  **}**   * **The for Loop**   **Syntax : for (initialization; condition; update)**  **{**  **//body of loop**  **}**   * **[The do... while Loop](https://www.sololearn.com/Play/CPlusPlus)**   **The do/while loop is a variant of the while loop. This loop will execute the code block once, before checking if the condition is true, then it will repeat the loop as long as the condition is true.**  **Syntax : do**  **{ *// code block to be executed* } while (*condition*);**   * **The Switch Statement**   **A switch statement allows a variable to be tested for equality against a list of values. Each value is called as a case, and the variables being switched on is checked for each case.**   * **[Logical Operator](https://www.sololearn.com/Play/CPlusPlus)**   **Logical Operators are used to combine two or more conditions/constraints or to**  **complement the evaluation of the original condition in consideration. The result of the operation of a logical operator is a boolean value either true or false.** |