**DAILY ASSESSMENT REPORT**

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| **Date:** | **22 June 2020** | **Name:** | **Gagan M K** |
| **Course:** | **C Plus Plus** | **USN:** | **4AL17EC032** |
| **Topic:** | * **Basic Concepts** * **Conditionals and loops** | **Semester & Section:** | **6th sem & ‘A’ sec** |
| **GitHub Repository:** | **Alvas-education-foundation/Gagan-Git** |  |  |

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| **FORENOON SESSION DETAILS** |
| **Image of session** |
| **Report – Report can be typed or hand written for up to two pages.**  **Basic Concepts:**   * **C++ is a general-purpose programming language.** * **C++ is used to create computer programs. Anything from art applications, music players and even video games!** * **C++ was derived from C, and is largely based on it.** * **C++ offers various headers, each of which contains information needed for programs to work properly. This particular program calls for the header <iostream>.** * **The number sign (#) at the beginning of a line targets the compiler's pre-processor. In this case, #include tells the pre-processor to include the <iostream> header.** * **Using a single cout statement with as many instances of \n as your program requires will print out multiple lines of text.** * **Comments are explanatory statements that you can include in the C++ code to explain what the code is doing.** * **The compiler ignores everything that appears in the comment, so none of that information shows in the result.** * **A comment beginning with two slashes (//) is called a single-line comment. The slashes tell the compiler to ignore everything that follows, until the end of the line.** * **Comments that require multiple lines begin with /\* and end with \*/** * **You can place them on the same line or insert one or more lines between them.** * **Comments can be written anywhere, and can be repeated any number of times throughout the code.** * **Within a comment marked with /\* and \*/, // characters have no special meaning, and vice versa. This allows you to "nest" one comment type within the other.** * **Creating a variable reserves a memory location, or a space in memory for storing values. The compiler requires that you provide a data type for each variable you declare.** * **C++ offer a rich assortment of built-in as well as user defined data types.** * **Integer, a built-in type, represents a whole number value. Define integer using the keyword int.** * **C++ requires that you specify the type and the identifier for each variable defined.** * **An identifier is a name for a variable, function, class, module, or any other user-defined item. An identifier starts with a letter (A-Z or a-z) or an underscore (\_), followed by additional letters, underscores, and digits (0 to 9).** * **Define all variables with a name and a data type before using them in a program. In cases in which you have multiple variables of the same type, it's possible to define them in one declaration, separating them with commas.** * **A variable can be assigned a value, and can be used to perform operations.** * **For example, we can create an additional variable called sum, and add two variables together.** * **You have the option to assign a value to the variable at the time you declare the variable or to declare it and assign a value later.** * **C++ supports these arithmetic operator.**   https://api.sololearn.com/DownloadFile?id=2449  **Conditionals and loops:**     * **The if statement is used to execute some code if a condition is true.**   **Syntax:**  **if (condition) {**  **statements**  **}**   * **The condition specifies which expression is to be evaluated. If the condition is true, the statements in the curly brackets are executed.** * **If the condition is false, the statements are simply ignored, and the program continues to run after the if statements body.** * **Relational Operators:**   https://api.sololearn.com/DownloadFile?id=2455   * **The not equal to operator evaluates the operands, determines whether or not they are equal. If the operands are not equal, the condition is evaluated to true.** * **An if statement can be followed by an optional else statement, which executes when the condition is false.**   **Syntax:**  **if (condition) {**  **//statements**  **}**  **else {**  **//statements**  **}**   * **A loop repeatedly executes a set of statements until a particular condition is satisfied.** * **A while loop statement repeatedly executes a target statement as long as a given condition remains true.** * **A for loop is a repetition control structure that allows you to efficiently write a loop that executes a specific number of times.**   **Syntax:**  **for ( init; condition; increment ) {**  **statement(s);**  **}**   * **The init step is executed first, and does not repeat.** * **Next, the condition is evaluated, and the body of the loop is executed if the condition is true.** * **In the next step, the increment statement updates the loop control variable.** * **Then, the loop's body repeats itself, only stopping when the condition becomes false.** * **Unlike for and while loops, which test the loop condition at the top of the loop, the do...while loop checks its condition at the bottom of the loop.** * **A do...while loop is similar to a while loop. The one difference is that the do...while loop is guaranteed to execute at least one time.**   **Syntax:**  **do {**  **statement(s);**  **} while (condition);**   * **Sometimes there is a need to test a variable for equality against multiple values. That can be achieved using multiple if statements.** * **The switch statement tests a variable against a list of values, which are called cases, to determine whether it is equal to any of them** * **Logical Operators:**   https://api.sololearn.com/DownloadFile?id=2456   * **The OR (||) operator returns true if any one of its operands is true.** * **The logical NOT (!) operator works with just a single operand, reversing its logical state. Thus, if a condition is true, the NOT operator makes it false, and vice versa.** * **Example program:**   **int age = 10;**  **if ( !(age > 16) ) {**  **cout << "Your age is less than 16" << endl;**  **}**  **// Outputs "Your age is less than 16"** |
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