DAILY ASSESSMENT FORMAT

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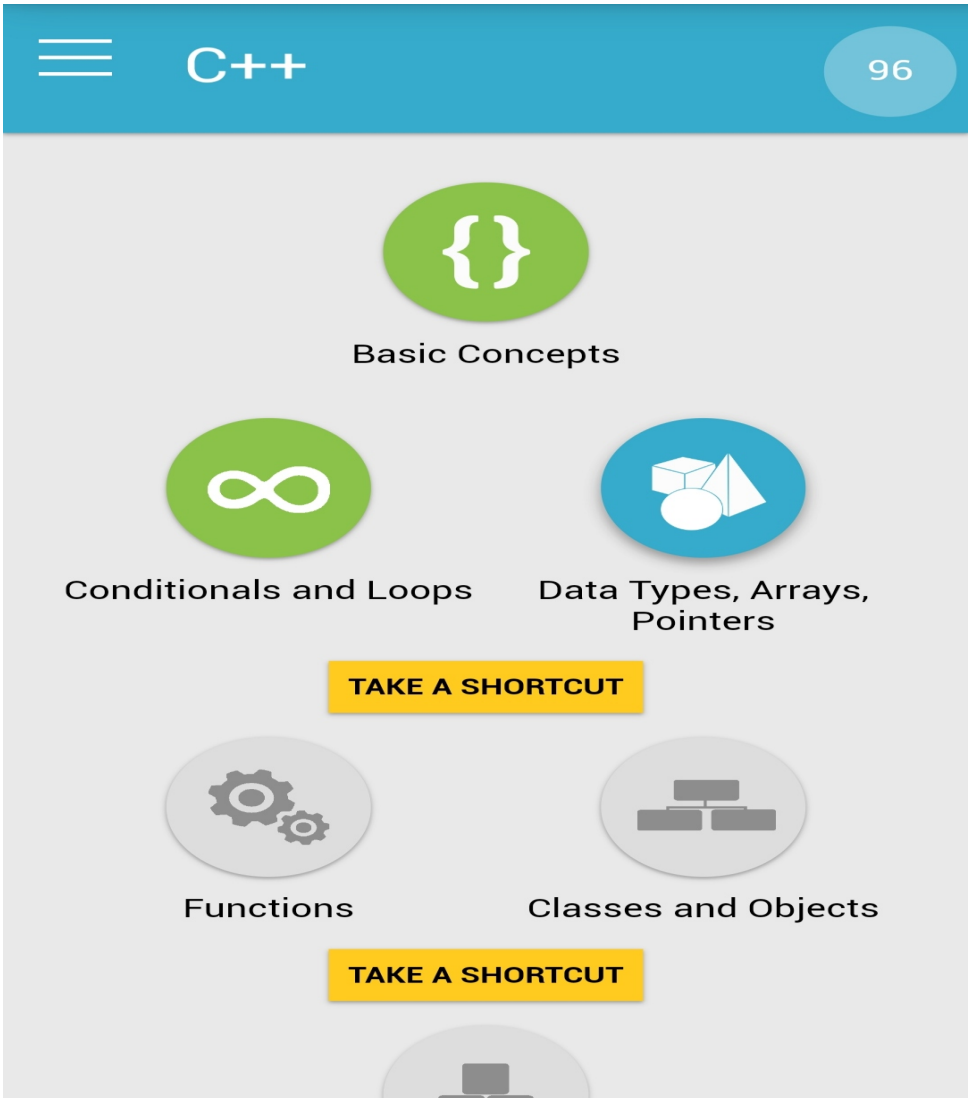
Course:	C++ Programming	USN:	4al17ec001
Topic:	• Basic Concepts • Conditional and loops	Semester & Section:	6 & 'A'
Github Repository:	Abhishek-online-courses		

SESSION DETAILS
Image of session



Report –

Module 1 : 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.

- **Components required to build C++ programs are,**
  - ✓ *Integrated Development Environment (IDE):* Provides tools for writing source code. Any text editor can be used as an IDE.
  - ✓ *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.

- **Comments:**
  - ✓ 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.
  - ✓ Comments that require multiple lines begin with /* and end with */ .

- **Variables:**
  - ✓ 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.**
  - ✓ We 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.

- **Arithmetic Operators:**
  - ✓ C++ supports these arithmetic operators.

Operator	Symbol	Form
Addition	**+**	x + y
Subtraction	**-**	x - y
Multiplication	*****	x * y
Division	**/**	x / y
Modulus	**%**	x % y

Module 2 : Conditionals and loops

- **If sttement**
  - ✓ The **if** statement is used to execute some code if a condition is true.
  - ✓ **Syntax**:

```
if (condition) {
   statements
}
```

- **else statement**
  - ✓ An if statement can be followed by an optional **else** statement, which executes when the condition is false.
  - ✓ **Syntax**:

```
if (condition) {
  //statements
}
else {
 //statements
}
```

- **While loop**
  - ✓ A **while** loop statement repeatedly executes a target statement as long as a given condition remains true.
  - ✓ **Syntax**:

```
while (condition) {
   statement(s);
}
```

- **For loop**
  - ✓ 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);
}
```

- **do while 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);
```

- **Switch statement**
  - ✓ 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.
  - ✓ **Syntax**:

```
switch (expression) {
```

```
    case value1:
      statement(s);
      break;
    case value2:
      statement(s);
      break;
      ...
    case valueN:
      statement(s);
      break;
  }
```

- **Logical Operators**
  - ✓ Use logical operators to combine conditional statements and return true or false.

Operator	Name of Operator	Form
&&	**AND** Operator	y && y
||	**OR** Operator	x || y
!	**NOT** Operator	! x