DAILY ASSESSMENT FORMAT

Course:	**C++**	**Name:**	**Sachin Krishna Moger**
Link :	**SOLOLEARN**	**USN:**	**4AL17EC103**
Org By:	**IBM**	**Semester & Section:**	**6-B**
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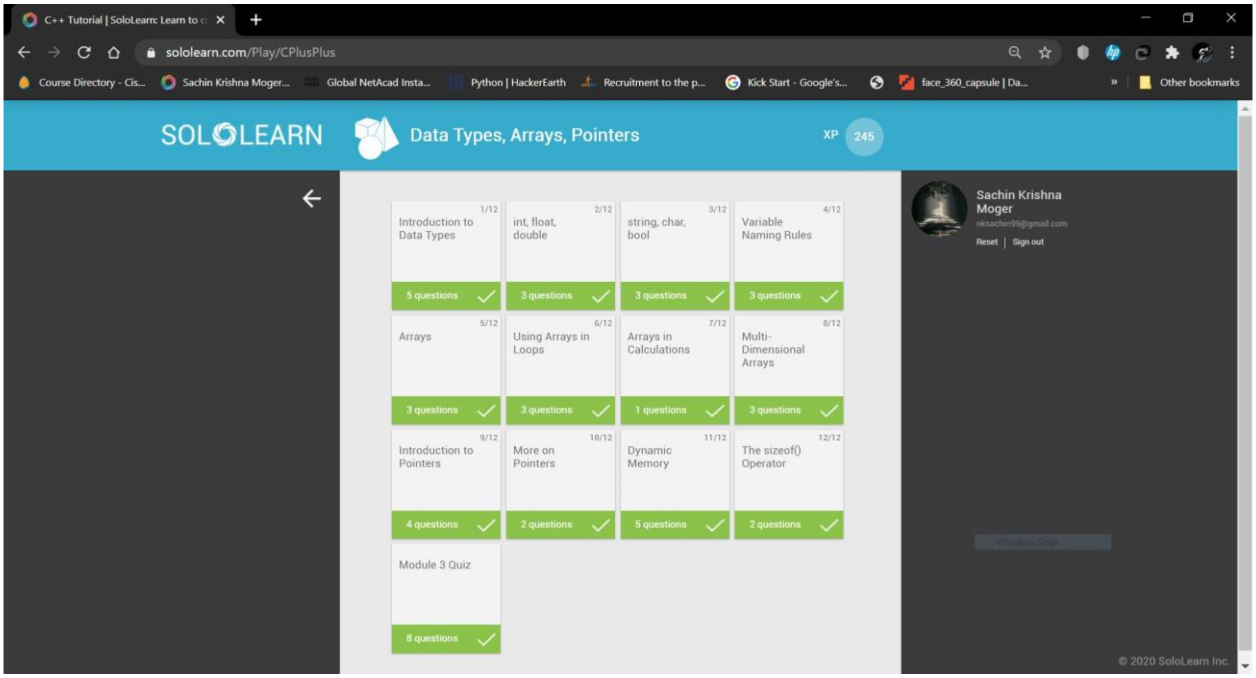
Topic Completed Today



Data Types, Arrays, Pointers

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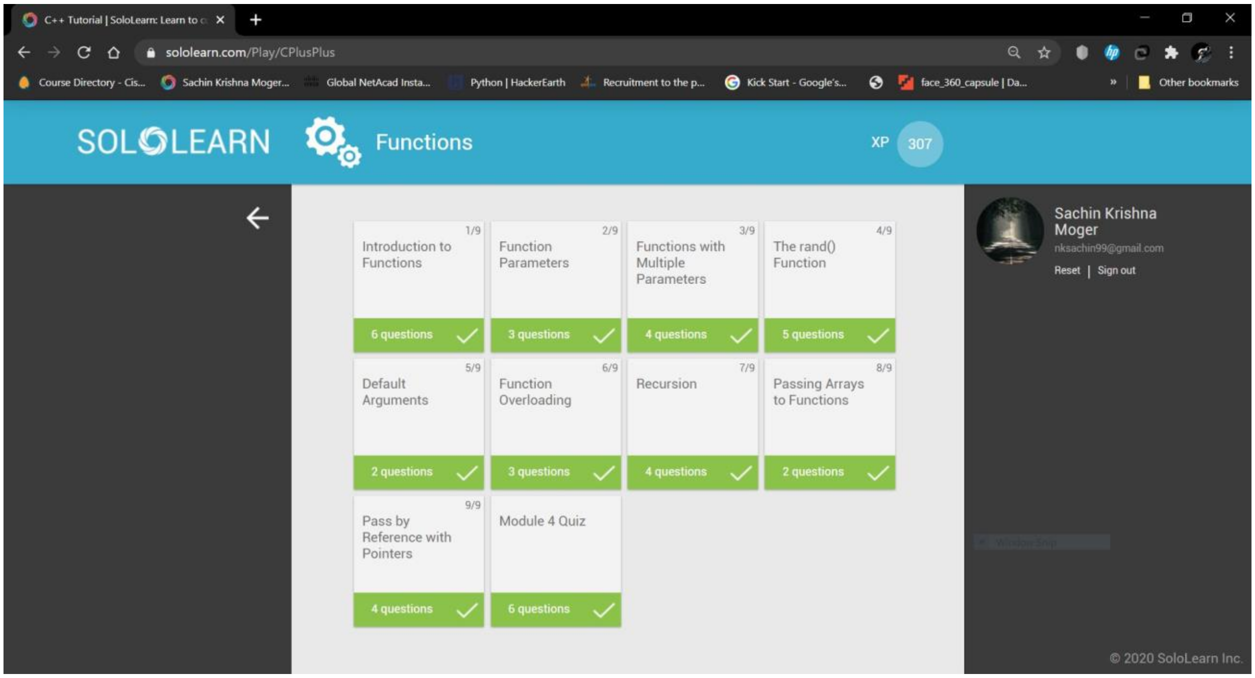
1/12 Introduction to Data Types — 5 questions ✓
2/12 int, float, double — 3 questions ✓
3/12 string, char, bool — 3 questions ✓
4/12 Variable Naming Rules — 3 questions ✓
5/12 Arrays — 3 questions ✓
6/12 Using Arrays in Loops — 3 questions ✓
7/12 Arrays in Calculations — 1 questions ✓
8/12 Multi-Dimensional Arrays — 3 questions ✓
9/12 Introduction to Pointers — 4 questions ✓
10/12 More on Pointers — 2 questions ✓
11/12 Dynamic Memory — 5 questions ✓
12/12 The sizeof() Operator — 2 questions ✓
Module 3 Quiz — 8 questions ✓



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1/9 Introduction to Functions — 6 questions ✓

2/9 Function Parameters — 3 questions ✓

3/9 Functions with Multiple Parameters — 4 questions ✓

4/9 The rand() Function — 5 questions ✓

5/9 Default Arguments — 2 questions ✓

6/9 Function Overloading — 3 questions ✓

7/9 Recursion — 4 questions ✓

8/9 Passing Arrays to Functions — 2 questions ✓

9/9 Pass by Reference with Pointers — 4 questions ✓

Module 4 Quiz — 6 questions ✓

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Basic Data Types

The data type specifies the size and type of information the variable will store:

Data Type	Size	Description
`int`	4 bytes	Stores whole numbers, without decimals
`float`	4 bytes	Stores fractional numbers, containing one or more decimals. Sufficient for storing 7 decimal digits
`double`	8 bytes	Stores fractional numbers, containing one or more decimals. Sufficient for storing 15 decimal digits
`boolean`	1 byte	Stores true or false values

char	1 byte	Stores a single character/letter/number, or ASCII values

C++ Arrays

Arrays are used to store multiple values in a single variable, instead of declaring separate variables for each value.

To declare an array, define the variable type, specify the name of the array followed by square brackets and specify the number of elements it should store:

```
string cars[4];
```

We have now declared a variable that holds an array of four strings. To insert values to it, we can use an array literal - place the values in a comma-separated list, inside curly braces:

```
string cars[4] = {"Volvo", "BMW", "Ford", "Mazda"};
```

To create an array of three integers, you could write:

```
int myNum[3] = {10, 20, 30}
```

A pointer however, is a variable that stores the memory address as its value.

A pointer variable points to a data type (like int or string) of the same type, and is created with the * operator. The address of the variable you're working with is assigned to the pointer:

C++ Functions

A function is a block of code which only runs when it is called.

You can pass data, known as parameters, into a function.

Functions are used to perform certain actions, and they are important for reusing code: Define the code once, and use it many times.

Create a Function

C++ provides some pre-defined functions, such as `main()`, which is used to execute code. But you can also create your own functions to perform certain actions.

To create (often referred to as *declare*) a function, specify the name of the function, followed by parentheses ():

```
void myFunction() {
  // code to be executed
}
```

Example Explained

- myFunction is the name of the function
- `void` means that the function does not have a return value. You will learn more about return values later in the next chapter
- inside the function (the body), add code that defines what the function should do

Call a Function

Declared functions are not executed immediately. They are "saved for later use", and will be executed later, when they are called.

To call a function, write the function's name followed by two parentheses `()` and a semicolon `;`