C++ code kata: Week #1

Hello 👋

First of all I would like to congratulate you for joining C++ code kata beginner series. Every week in the series you will receive a problem statement for which you have to prepare your own solutions.

Every Friday we will give you the solutions document that you can use to compare your answers with.

This whole month we will discuss literals, variables, initialization, operators and expression writing. We will follow C++14 standard while writing the answers.

Ground statement

Like any other programming language C++ works with numbers and textual data. You have to write following `literals` and print their value onto screen.

```
// Age of a person
// Value of Absolute Zero in Celcius
// Value of PI
// A bit mask with 3rd bit on and others are off
// Integer 57005 in hexadecimal
// 1.8233323443434
// 33.444444444445555
// name of capital city of India
// First alphabet of english
// First alphabet of hindi language
```

Every informaton or data that you display onto console consumes memory. You have to calculate how much memory each of these `literals` consume and print it onto screen.

```
// Age of a person
// Value of Absolute Zero in Celcius
// Value of PI
// A bit mask with 3rd bit on and others are off
// Integer 57005 in hexadecimal
// 1.8233323443434
// 33.444444444445555
// name of capital city of India
```

```
// First alphabet of english
// First alphabet of hindi language
```

Hints when you are stuck

- How to display information on screen
- What is a literal
- How to write an integer literal
- How to write a fractional literal
- How to write a string literal
- How to get count of memory consumed by a data value

Tools

To write solutions you can download tools from:

Tool	Usage	Download Location
Visual Studio Code	Lightweight program editor.	Download
GCC (Linux)	C / C++ Compiler.	Download
MingGW (Windows)	C / C++ Compiler.	Download
XCode toolkit (MacOS)	IDE with multi language support.	Download
Catch2	C++ Test framework	Download

Sensai Says

"What you learn is not what you read or listened to, but rather what you attempted at..."
Progressive learning

If you feel the exercise a little bit difficult to solve do not get disheartened. The whole idea behind these programming exercises is not to solve them but rather attempt them.

Try to attempt them in as many ways as possible, you will learn new techniques that will be very helpful to you in longer run especially in work field.

We will present you with **solution mail / document** also. The solution will show you various ways to solve a problem and why a technique is better than last one.

We encourage you to make notes from the solution provided and try to apply what you have learnt in future exercise.

What I will gain from these exercises ?

1. Better and faster way to solve an exercise.

2. Reusable components like containers, algorithms etc. that you can apply to problem at handrather than designign your own.
3. Confidence and attitude to solve a problem in new ways, instead of trying monotonus techniques.
4. Writing the robust and quality software usign **test driven development**.

All the best 👌

Still have some questions related to this exercise. Reach us at

1. 💬 programmingdays (Skype)