

Few words about Programming

Introduction

Let's start with a question. How do we express our feelings? We will say we express our feeling by language. Nowadays we use computers and mobile phones so much. They have become part and parcel of your life. We use it for many purposes. Like we do a lot of work, play many games, etc. When we are doing something in it like playing games for example-PUBG and FreeFire. We control the game character with our hands. We give the command to the character to shoot or walk, etc. Have we wondered how they know we are telling them to do something? We can also think about how an app works. We are pretty familiar with them because nowadays we use mobile apps or computers app very much. But have we wondered how they interact with our commands? The answer is they all do these things by programming. Yes, they all do the character moving stuff and operating the apps stuff by programming. I will about it broadly

later. First, we will know about the kinds of it. In this big world, there are full of variations. We know that people have different kinds of language all over the world. A computer has also a language like this. You might be exclaimed to hear that computer also has a language. The language is called a programming language. We have different languages throughout the world. Like Spanish, Italic, French, etc. Programming also has several languages. These are C, C++, Python, Java, JavaScript, and many more. They all seem like the various languages like us. But the main difference is programming is a computer language. They are very powerful. Now I will discuss the importance of it. I will elaborate more about the programming.

Importance of Programming

Programming has much importance. It creates an impact in our life directly and indirectly. Let me tell you how it creates impact. We know that mobile phones and computers are very important in our day-to-day life. We

cannot imagine a single day without these things. You will be surprised to know that they all work and interact with our commands for the contribution of programming. All the software we use in our day-to-day life is created with programming. So we can say it has a tremendous impact. Let's see how a program looks like. You can say it a special kind of text that takes input from the user and works with it. Then it gives us the output. Let's see an example which us output as a text which says hello, world!

```
#include <stdio.h>

int main(void)

{

printf("hello, world!");

}
```

It is a simple program written in C that gives us hello, world! as output. As I told you before C, C++ are programming languages. They all have variation like language around the world has. It not only can print texts

it also can perform mathematical operations. Let me show you an another example regarding that.

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
    int num1, num2, sum;
```

```
    printf("Enter first number: ");
```

```
    scanf("%d", &num1);
```

```
    printf("Enter second number: ");
```

```
    scanf("%d", &num2);
```

```
    sum = num1 + num2;
```

```
    printf("Sum of the entered numbers: %d", sum);
```

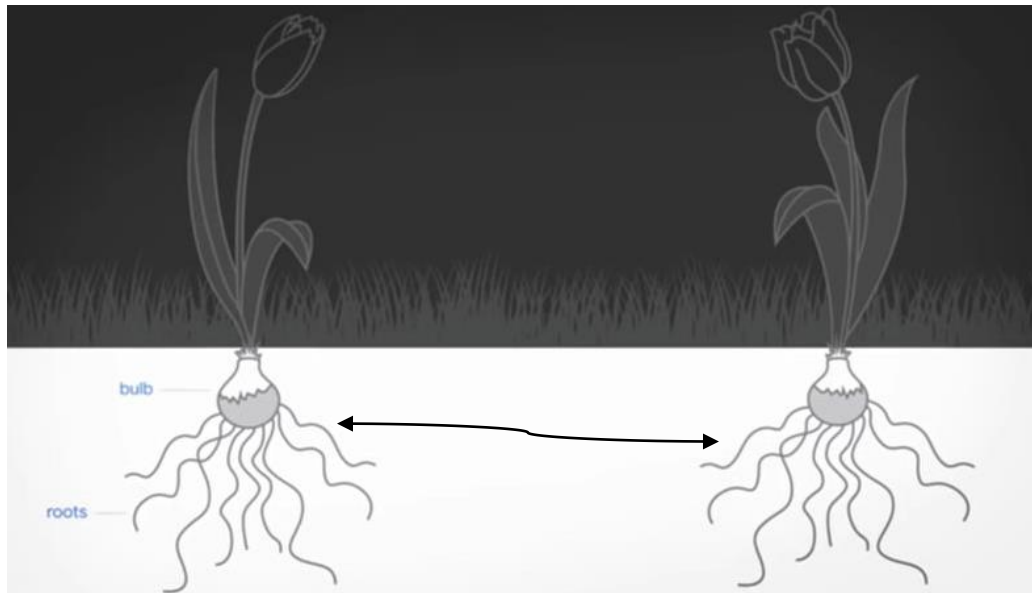
```
    return 0;
```

```
}
```

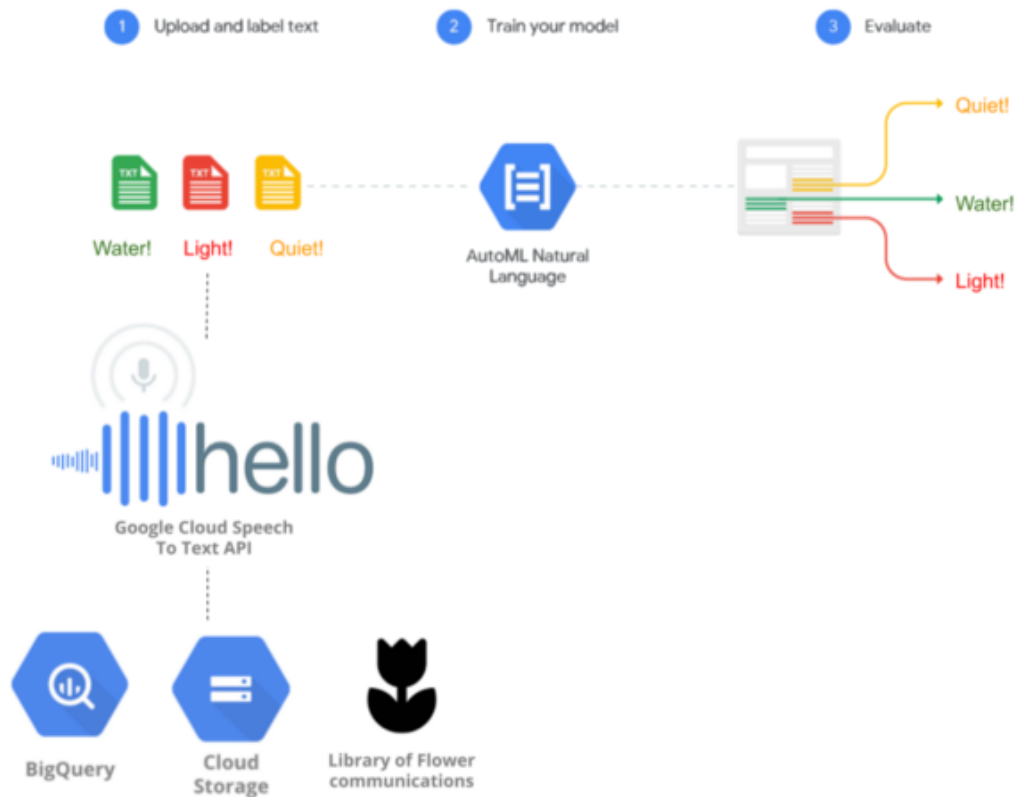
If we run the program it will prompt you to give a number, then again it will prompt you to give another number. Finally it prints the sum of the numbers. Let me describe the process. The program takes numbers from you as input then it stores the numbers in a place called variable. You can say it is like a store room storing things in it. You can say this in case of variable because it stores the value given from the user. Then it does something with the values in the variable and gives you the output. Now I tell you something. After hearing it I think you will realize the importance of programming. We use the thing most in our day-to-day life. We all are familiar with it. The thing is Facebook. Yes, it is used by all kinds of people. Think if Facebook is off for one day or its important feature is missing (like texting and sending files) it will not only bear loss for you but also all kinds of people. This is made by programming. If it is not programmed for one day it might bear a great loss to all. There might be an economy crisis for a company if a deal is not successful because of Facebook. So we can say it has a large number of importance. Now I will talk about a great discovery of programming.

A Great Discovery made by programming

We all love to hear about discovery stories. Now I will tell you a great discovery made by programming. We are most familiar with Google. We know a much about it. It is also created by programming. Now I will share about a great discovery of a university of Netherlands with help of google. Google is connected with many educational institutions. With help of Google materials Wageningen University & Research has created an amazing thing with help of machine learning. Let me just a little elaborate about machine learning. We know that human learn from their past and take next the next step by evaluating past experience. Machine follows the instructions given by human. But what if we can train the machines from our past. That is called machine learning. Now I tell about the research. It might be unbelievable to you. They had created a communication system between humans and tulip flower. Not only we can communicate with them but also they can respond by saying with help of Google speech technology. First we look at how tulip communicate. Here's a picture of it-



We can see that they communicate through their root system. So now we might have thinking how we can communicate with them. The invention of the university will help us. With their technology and help of programming they can turn human voice which is connected with google cloud to tulip's rudimentary language. There are many sensors for doing the work. Let's see a picture of it-



We can see our speech goes in tulip then Machine learning finds the tulips rudimentary data of tulip and sends to tulip and in same process tulip gives us the output . This is the process how our voice goes to tulip and how they respond by saying with help of google speech technology.

If you are interested in programming or want to do it in advance level

For Beginners

If you are interesting to do programming then you can learn it from YouTube. There is a tons of video are available in many languages. But make sure you follow these steps-

1. Pick a language (if you are unable to choose think the purpose you want to do it)
2. Learn the language fully that you have chosen (if you try to learn several languages you might fail to learn programming)
3. Practice, Practice and Practice (Because without practice you cannot learn it)

For Advance level people

You have learnt advance level programming but want to do much more or want a certification of it. Then you can take Harvard University's CS50 course on edx. It is completely free. There also labs and problem sets end of every lecture to test your knowledge. After finishing the whole course you will the free certificate of Harvard

University. I can guarantee you will learn many things from it because I am a student of it. If you like you can choose it. I think it will be a great choice.

Thank you everyone for hearing me out.