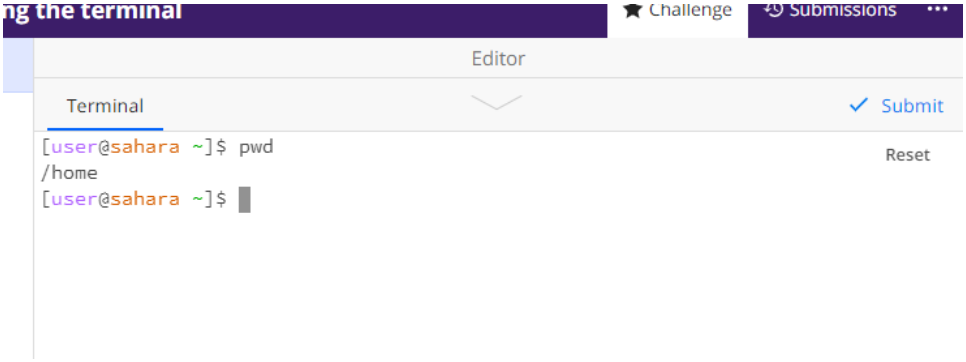
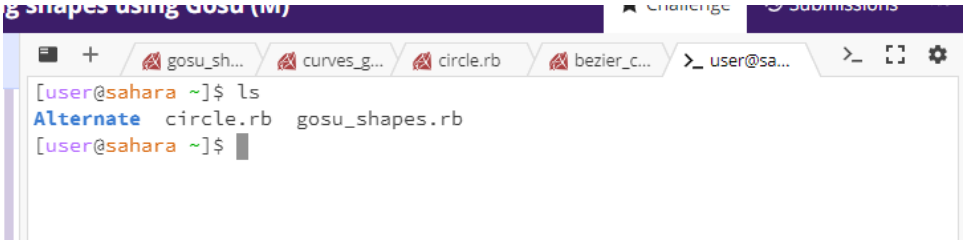
1.

The pwd command prints out the current directory you are in



The ls command prints out the contents of a directory



The cd command allows you to move between directories

2.

A person name uses the string value

A person's age in year use integer

A phone number use the string value

A temperature in Celsius suggest use float

The average age of a group of people need to use the float

Whether a person has eaten lunch use the Boolen value

3.

A string data type

Example the personal location

An integer data type

Example the number of the family member

A float data type

Example the scale of earthquake intensity

An Bollen data type

Example check the email is valid

4.

Expression	Given	Value	Data Type
5		5	Integer
True		True	Boolen
a	a = 2.5	2.5	Float
1 + 2 * 3		7	Integer
a and FALSE	a = TRUE	True and False	Boolen
a or FALSE	a = TRUE	True or False	Boolen
a + b	a = 1 and b = 2	3	Integer
2 * a	a = 3	6	Integer
a * 2 + b	a = 1.5 and b = 2	5	Integer
a + 2 * b	a = 1.5 and b = 2	5.5	Float
(a + b) * c	a = 1, b = 1, and c = 5	10	Integer
"Fred" + "Smith"		Fred Smith	String
a + "Smith"	a = "Wilma"	Wilma Smith	String

5.

-Declaration of a variable in a computer programming language is a statement used to specify the variable name and its data type. Declaration tells the compiler about the existence of an entity in the program and its location. When you declare a variable, you should also initialize it.

- Initialization is the process of assigning a value to the Variable. Every programming language has its own method of initializing the variable. If the value is not assigned to the Variable, then the process is only called a Declaration.

6.

Parameters identify values that are passed into a function. For example, a function to add three numbers might have three parameters. A function has a name, and it can be called from other points of a program. When that happens, the information passed is called an argument. Modern programming languages typically allow functions to have several parameters.

In the following C++ example, int a and int b are parameters,

```
int addition (int a, int b)
{
  int r;
  r=a+b;
  return r;
}
```

7.

LOCAL VARIABLES

Variables that are declared inside a function or block are local variables. They can be used only by statements that are inside that function or block of code. Local variables are not known to functions outside their own. Following is the example using local variables:

```
#include <iostream>
using namespace std;

int main ()
{
  // Local variable declaration:
  int a, b;
  int c;

  // actual initialization
  a = 10;
  b = 20;
  c = a + b;

  cout << c;

  return 0;
}
```

GLOBAL VARIABLES

Global variables are defined outside of all the functions, usually on top of the program. The global variables will hold their type throughout the life-time of your program.

A global variable can be accessed by any function. That is, a global variable is available for use throughout your entire program after its declaration. Following is the example using global and local variables:

```cpp
#include <iostream>
using namespace std;

// Global variable declaration:
int g;

int main ()
{
  // Local variable declaration:
  int a, b;

  // actual initialization
  a = 10;
  b = 20;
  g = a + b;

  cout << g;

  return 0;
}
```

8.

```cpp
// C++ program to calculate average of array elements
#include <iostream>
using namespace std;

// Function that return average of an array.
double average(int a[], int n)
{
    // Find sum of array element
    int sum = 0;
    for (int i=0; i<n; i++)
        sum += a[i];

    return (double)sum/n;
}
```

9

```
int main()
{
    int arr[] = {10, 2, 3, 4, 5, 6, 7, 8, 9};
    int n = sizeof(arr)/sizeof(arr[0]);

    cout << average(arr, n) << endl;
    return 0;
}
```

.

10.

```
int main ()
{
  int z;
  z = addition (5,3);
 if (z >10){
     count << "Double Dights"
 }
 else{
     count << "Single Dights"
 }

}
```