## Programming Fundamental Home Task

Below the sample code are given you have to dry run these code and also understand their working. You have to show output of each code along with reason.

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## Part 1

Sample Code	Output
int x;	When x = 3
if $(x == 3)$	The if condition is fulfilled!
<pre>cout&lt;&lt;"The if condition is fulfilled!\n"; cout&lt;&lt;"The if condition is not fulfilled!\n";</pre>	The if condition is not fulfilled!
	When x = 0 The if condition is not fulfilled!

Sample Code	Output
int x;	When x = 13
if $(x > 12)$	
{	BLUEJEANS
if ( x < 15)	
cout<<"BLUE";	When x = 33
}	JEANS
else	
cout<<"GREEN";	When x = 0
cout<<"JEANS";	GREENJEANS

Sample Code	Output
	William Gates Carlos Slim Helu
int m=5,n=10,q=20;	
if(q/n*m)	
cout<<"William Gates";	
else	
cout<<" Warren Buffet";	
cout<<" Carlos Slim Helu";	

```
Sample Code
                                                                               Output
int x;
                                                        When x = -5
if(x == 3)
                                                        X=-5
                                                        The if condition is not fulfilled!
cout << "x = %d n" << x;
cout<<"The if condition is fulfilled!\n";</pre>
}
else
                                                        When x = 3
cout << "x = %d \n" << x;
                                                        x = 3
cout<<"The if condition is not fulfilled!\n";
                                                        The if condition is fulfilled!
}
```

```
Sample Code
                                                                       Output
                                                  number= 5, alpha=-5
int number;
                                                  No, I'm here!
double alpha;
                                                  No, actually, I'm here!
if (number > 0)
                                                  number= 5, alpha=1
if (alpha > 0)
cout<<"Here I am!";
                                                  Here I am!
else
                                                  No, actually, I'm here!
cout<<"No, I'm here!";
cout<<"No, actually, I'm here!";
                                                  number= -2, alpha=-5
                                                  No, actually, I'm here!
```

```
Sample Code
                                                                       Output
                                                   When x = 3
void main()
 {
                                                   no
int x;
    if (x < 1)
                                                   When x = -2
      cout<<"hello";
                                                   hello
    if (x == 5)
                                                   no
      cout<<"hi";
    else
      cout<<"no";
                                                   When x = 5
  }
                                                   hi
```

```
      Sample Code
      Output number1=5, number2=3

      int numb1, numb2; if(numb1==numb2) cout<<"Result: "<< numb1<<" > " << numb2; else if(numb1>numb2) cout<<"Result: "<< numb1<<" > " << numb2; number1=2, number2=3</td>

      else if(numb1>numb2) cout<<"Result: "<< numb1<<" > " << numb2; number1=5, number2=5</td>

      else cout<<"Result: "<< numb1<<" <" << numb2;</td>
```

Sample Code	Output
	When k = 20
int k;	Grade F.
if(k < 90)	
if(k < 80)	When k = 75
if(k < 70)	Grade C.
if(k < 60)	
cout<<"Grade F.\n";	When k = 85
else	Grade B.
cout<<"Grade D.\n";	
else	
cout<<"Grade C.\n";	
else	
cout<<"Grade B.\n";	
else	
cout<<"Grade A.\n";	

Sample Code	Output
int k;	When K = 63 Grade D.
if(k > 69)	
{	
if(k > 89)	When K = 90

```
cout<<"Grade A.\n";
                                                  Grade A.
       else
       {
               if(k > 79)
                       cout<<"Grade B.\n";
                else
                                                  When K = 83
                       cout<<"Grade C.\n";
       }
                                                  Grade B.
}
else
if(k > 59)
               cout<<"Grade D.\n";
       else
               cout<<"Grade F.\n";
}
```

```
Sample Code
                                                                           Output
                                                      When K = 45
int k, a=0, b=0, c=0, d=0, f=0;
                                                      A's = 0
if(k \le 59)
                                                      B's = 0
        f = f + 1;
                                                      C's = 0
else
                                                      D's = 0
                                                      F's = 1
{
        if(k \le 89)
                 if(k \le 69)
                         d = d + 1;
                 else
                         if(k \le 79)
                                                      When K = 68
                                 c = c + 1;
                         else
                                                     A's = 0
                                                      B's = 0
                                 b = b + 1;
                }
                                                      C's = 0
                                                      D's = 1
        }
        else
                                                      F's = 0
                a = a + 1;
}
cout<<"A's = "<< a;
cout<<"B's = "<<b;
cout<<"C's = "<<c;
                                                      When K = 95
cout<<"D's = "<<d;
                                                      A's = 1
cout<<"F's = "<<f;
                                                      B's = 0
                                                      C's = 0
                                                      D's = 0
```

```
F's = 0
```

```
Sample Code
                                                                                  Output
int year, train;
                                                                 year = 13, train=5 ,curr_post='B'
                                                                 Qualified For Manager!
char curr_post;
if(year >= 10)
if(train >= 5)
        if(curr_post == 'A' || 'a')
                                                                 year = 10, train=2 ,curr_post='a'
cout<<"Qualified For Manager!\n";</pre>
        else
                                                                 Need more training.
                                                                 Need more experience.
        cout<<"Become Assistant Manager first.\n";</pre>
        cout<<"Need more training.\n";</pre>
        cout<<"Need more experience.\n";</pre>
else
                                                                 year = 5, train=12 ,curr_post='a'
        cout<<"Need more training.\n";</pre>
                                                                 Need more experience.
        cout<<"Need more experience.\n";</pre>
else
cout<<"Need more experience.\n";</pre>
```

Sample Code	Output
<pre>int degreesOutside ; int numberOfClouds; if (degreesOutside &gt; 70 &amp;&amp; numberOfClouds &lt; 5)</pre>	degreesOutside= 80, numberOfClouds=10
{   cout<<"Wear sun screen!";  }	degreesOutside= 80, numberOfClouds= -1 Wear sun screen!

Sample Code	Output
	When myAge= 95
	You're not quite in your peak.

int myAge;
if ((myAge >= 0 &&myAge < 3) || myAge > 90&&myAge<=100)
cout<<"You\'re not quite in your peak.";

When myAge= 0
You're not quite in your peak.

When myAge= 55