

شایان گلمحمدی - تهران مرکز - ورودی 99 - یکشنبه ساعت 7:30

تمرین فصل دستوران : if , switch , for

تمرین ها :

-۱

```
if(a>0&&b>0||c==0)cout<<"Data is incorrect"<<endl;
```

-۲

```
if (mark<0||mark>20){  
    cout<<"out of range"<<endl;  
} else if (mark>=0 && mark<10){  
    cout<<"failed"<<endl;  
} else if (mark>=10&&mark<=14){  
    cout<<"passed"<<endl;  
} else {  
    cout<<"passed very good"<<endl;  
}
```

-۳

```

if (a==10){
    cout<<"should not be ten";
} else if (a==20){
    cout<<"Twenty"<<endl;
    cout<<"Thirty"<<endl;
    cout<<"forty"<<endl;
    cout<<"out of range"<<endl;
} else if (a==30){
    cout<<"Thirty"<<endl;
    cout<<"forty"<<endl;
    cout<<"out of range"<<endl;
} else if (a==40){
    cout<<"forty"<<endl;
    cout<<"out of range"<<endl;
} else {cout<<"out of range";}

```

-۴

```

1  #include <iostream>
2  using namespace std;
3  v int main(){
4      int a;
5      cin>>a;
6  v  if (a%2==0){
7      cout<<"The input number is even"<<endl;
8  } else {cout<<"The input number is odd";}
9      return 0;
10 }

```

-5

```
1  #include <iostream>
2  using namespace std;
3  int main(){
4      int mark;
5      cin>>mark;
6      if (mark>=0&&mark<10){
7          cout<<"F";
8      } else if (mark>=10&&mark<12){
9          cout<<"D"<<endl;
10     } else if (mark>=12&&mark<15){
11         cout<<"C"<<endl;
12     } else if (mark>=15&&mark<=18){
13         cout<<"B"<<endl;
14     } else if (mark>=18&&mark<=20){
15         cout<<"A"<<endl;
16     } else {cout<<"out of range";}
17     return 0;
18 }
```

-6

```
1  #include <iostream>
2  using namespace std;
3  int main(){
4      int i,j,k,m,p;
5      for (i=1;i<7;i++){
6          j = k = i;
7          m = ++j * i;
8          p = k++ + m;
9          cout<<"i = "<<endl;
10         cout<<"m = "<<m<<" p = "<<p<<endl;
11     }
12     return 0;
13 }
```

```
i =
m = 2 p = 3
i =
m = 6 p = 8
i =
m = 12 p = 15
i =
m = 20 p = 24
i =
m = 30 p = 35
i =
m = 42 p = 48
Press any key to continue . . .
```

-7

```

1  #include <iostream>
2  using namespace std;
3  int main(){
4      float milage=20;
5      if (milage<24.0){
6          cout <<"Gas";
7          cout <<"Oil";
8      }//;
9      else
10         cout << "Fuel efficient";
11     return 0;
12 }

```

به دلیل وجود ; در خط هشتم و قبل از else.

-۸

```

1  // a.
2  x<y && y<=z
3  // b.
4  x>0 && y>0 && z>00
5  // c.
6  x!=y && x!=z
7  // d.
8  x==z && x==y

```

-۹

- a. T
- b. F
- c. F
- d. T

e. F

-١٥

```
1  #include <iostream>
2  using namespace std;
3  int main(){
4      for(int i=1 ; i<5 ; i++ ){
5          for(int j=1 ; j<=i ; j++){
6              cout<<j<<" ";
7          }
8          cout<<endl;
9      }
10     return 0;
11 }
```

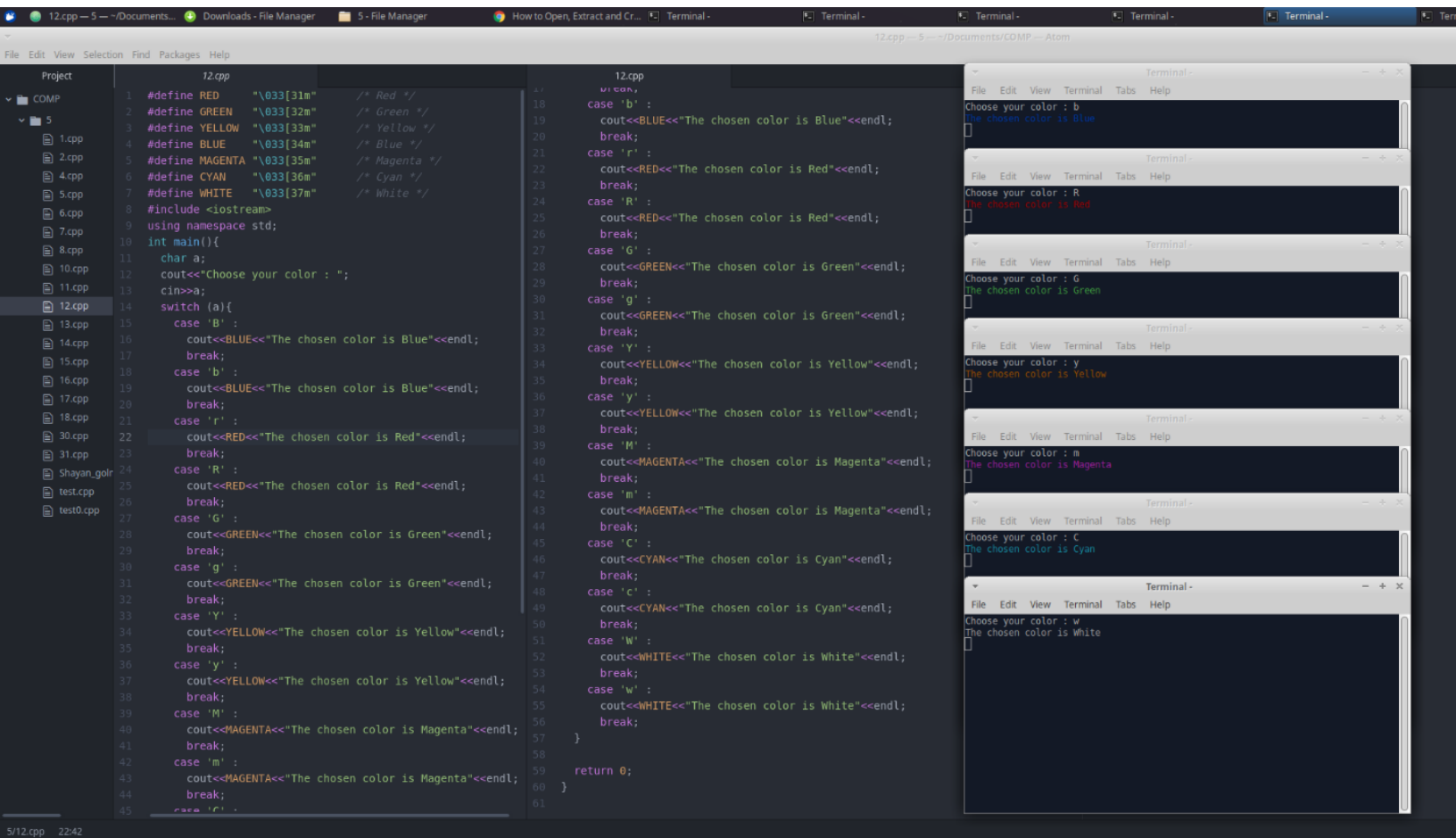
```
1
1 2
1 2 3
1 2 3 4
Press any key to continue . . .
```

-١١

```
1  #include <iostream>
2  using namespace std;
3  int main(){
4      for(int i=1 ; i<7 ; i++ ){
5          for(int j=1 ; j<=i ; j++){
6              cout<<"* ";
7          }
8          cout<<endl;
9      }
10     return 0;
11 }
```

```
*
* *
* * *
* * * *
* * * * *
* * * * * *
Press any key to continue . . .
```

-١٢



```

1  #include <iostream>
2  using namespace std;
3  int main(){
4      int day;
5      cin>>day;
6      switch (day) {
7          case 1:
8              cout << "Saturday";
9              break;
10         case 2:
11             cout << "Sunday";
12             break;
13         case 3:
14             cout << "Monday";
15             break;
16         case 4:
17             cout << "Tuesday";
18             break;
19         case 5:
20             cout << "Wednesday";
21             break;
22         case 6:
23             cout << "Thursday";
24             break;
25         case 7:
26             cout << "Friday";
27             break;
28     }
29     return 0;
30 }

```

```

4
Tuesday
Press any key to continue . . .

```

```

1  #include <iostream>
2  using namespace std;
3  int main(){
4      int a;
5      cin>>a;
6      if (a<2){
7          cout<<"NO"<<endl;
8      } else {
9          for (int i=2;i<a;i++){
10             if (a%i==0){
11                 cout<<"NO"<<endl;
12                 break;
13             } else if (i==a-1){
14                 cout<<"YES"<<endl;
15             }
16         }
17     }
18     return 0;
19 }

```

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```

1  #include <iostream>
2  using namespace std;
3  int main(){
4      int a=1,k,f=1;
5      cin>>a;
6      if(a==0){
7          cout<<"1";
8      } else if (a>0){
9          for(int i = 1; i <=a; ++i){
10             f *= i;
11         }
12         cout <<f;
13     } else {cout<<"undefined";}
14
15     return 0;
16 }

```



```
1  #include <iostream>
2  using namespace std;
3  int main(){
4      int a,b;
5      float c=1;
6      cin>>a>>b;
7      if(b==0){
8          cout<<"1";
9      } else if (b>0){
10         for (int i=1;i<=b;i++){
11             c*=a;
12         }
13         cout<<c;
14     } else {
15         for (int i=1;i<=(-b);i++){
16             c*=a;
17         }
18         cout<<1/c;
19     }
20     return 0;
21 }
```

```

1  #include <iostream>
2  using namespace std;
3  int main(){
4      int a,b,c;
5      cout<<"a = ";
6      cin>>a;
7      cout<<"b = ";
8      cin>>b;
9      if (b<a){
10         b=a+b ; a=b-a ; b=b-a ;
11     }
12     cout<<"c = ";
13     cin>>c;
14     if (c<b){
15         c=c+b ; b=c-b ; c=c-b ;
16     }
17     if (b<a){
18         b=a+b ; a=b-a ; b=b-a ;
19     }
20     cout<<"*****"<<endl<<a<<endl<<b<<endl<<c<<endl<<"*****";
21     return 0;
22 }

```

-1A

```

1  #include <iostream>
2  using namespace std;
3  int main(){
4      int a,b;
5      cout<<"a = ";
6      cin>>a;
7      cout<<"b = ";
8      cin>>b;
9      a=a+b;
10     b=a-b;
11     a=a-b;
12     cout<<"*****"<<endl<<"a = "<<a<<endl<<"b = "<<b;
13     return 0;
14 }

```