



NATIONAL UNIVERSITY OF SCIENCES AND TECHNOLOGY

COMPUTER SYSTEM AND PROGRAMMING

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◆ SECTION: B

TASK: 1

CODE:

```
#include <iostream>

using namespace std ;

int main (){

char choice;

double population;

cout<<"please select a province"<<endl;

cout<<"A : Punjab"<<endl;

cout<<"B : Sindh"<<endl;

cout<<"C : KPK"<<endl;

cout<<"D : Balochistan"<<endl;

cout<<"please enter your choice: ";

cin>>choice;

switch (choice){

case 'A':

population=110 ;break;

case 'B':

population=54;break;

case 'C':

population=35;break;

case 'D':

population=12;break;

default:

cout<<"invalid choice"<<endl;

return 0;}

cout<<"the population of selected province is: "<<population<<" million"<<endl;

return 0;
```

```
}
```

RESULT:

```
please select a province
A : Punjab
B : Sindh
C : KPK
D : Balochistan
please enter your choice: D
the population of selected province is: 12 million

-----
Process exited after 9.249 seconds with return value 0
Press any key to continue . . .
```

TASK: 2

CODE:

```
#include <iostream>

using namespace std;

int main(){

char alphabet;

cout<<"Enter an alphabet: ";

cin>>alphabet;

switch (alphabet){

case 'a':

case 'A':

case 'e':

case 'E':

case 'i':

case 'I':

case 'o':

case 'O':

case 'u':
```

```

case 'U':
cout<<"so "<<alphabet<<" is vowel"<<endl;break;
default :
cout<<"so "<<alphabet<<" is consonant"<<endl;break;
}
return 0;
}

```

RESULT:

```

Enter an alphabet: U
so U is vowel

-----
Process exited after 11.65 seconds with return value 0
Press any key to continue . . .

```

TASK: 3

CODE:

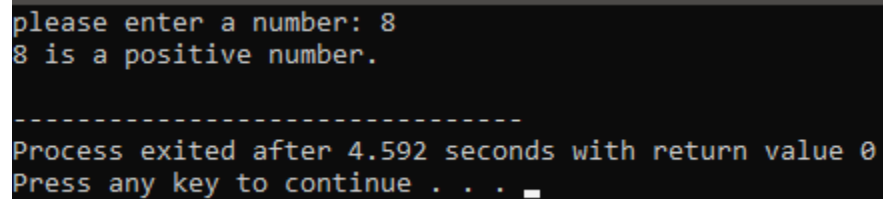
```

#include <iostream>
using namespace std;
int main()
{ int number;
cout << "Enter a number: ";
cin >> number;
switch (number > 0) {
case 1:
cout << "The number is positive." << endl; break;
case 0:
switch (number < 0) {
case 1:
cout << "The number is negative." << endl; break;

```

```
case 0:
    cout << "The number is zero." << endl;
    break;
}
break; }
return 0; }
```

RESULT:



```
please enter a number: 8
8 is a positive number.

-----
Process exited after 4.592 seconds with return value 0
Press any key to continue . . .
```

TASK: 4

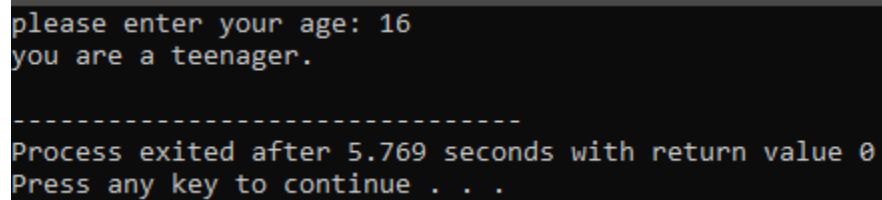
CODE:

```
#include <iostream>
using namespace std;
int main (){
    int age;
    cout<<"please enter your age: ";
    cin>>age;
    if(age<18){
        if (age<=13){
            cout<<"you are a child."<<endl;

        }
        else{
            cout<<"you are a teenager."<<endl;
        }
    }
}
```

```
}  
else{  
    cout<<"you are an adult."<<endl;  
}  
return 0;  
}
```

RESULT:

A terminal window with a black background and green text. It shows the user inputting '16' for their age, followed by the program output 'you are a teenager.' and a separator line of dashes. Below the dashes, it says 'Process exited after 5.769 seconds with return value 0' and 'Press any key to continue . . .'.

```
please enter your age: 16  
you are a teenager.  
-----  
Process exited after 5.769 seconds with return value 0  
Press any key to continue . . .
```

TASK: 5

CODE:

```
#include <iostream>  
  
using namespace std;  
  
int main(){  
    int a,b,c;  
  
    cout<<"Enter three numbers: ";  
    cin>>a>>b>>c;  
  
    if(a > b){  
        if(a>c){  
            cout<<a<<" is the greatest number"<<endl;  
        }  
        else{  
            cout<<c<<" is the greatest number"<<endl;  
        }  
    }  
}
```

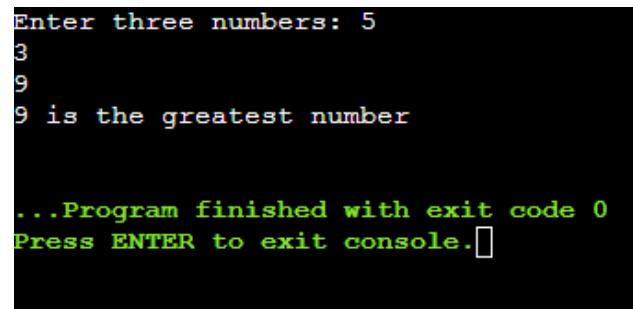
```

}
else{
    if(b>c){
        cout<<b<<" is the greatest number."<<endl;
    }
    else{
        cout<<c<<" is the greatest number."<<endl;
    }
}

return 0;
}

```

RESULT:



```

Enter three numbers: 5
3
9
9 is the greatest number

...Program finished with exit code 0
Press ENTER to exit console.

```

TASK: 6

CODE:

```

#include <iostream>

using namespace std;

int main() {
    char letter;

    cout << "Enter a letter: ";

```

```
cin >> letter;
```

```
if (isalpha(letter)) {
```

```
    if (letter == 'a' || letter == 'e' || letter == 'i' || letter == 'o' || letter == 'u' || letter == 'A' || letter == 'E'  
    || letter == 'I' || letter == 'O' || letter == 'U') {
```

```
        cout << letter << " is a vowel." << endl;
```

```
    } else {
```

```
        cout << letter << " is a consonant." << endl;
```

```
    }
```

```
} else {
```

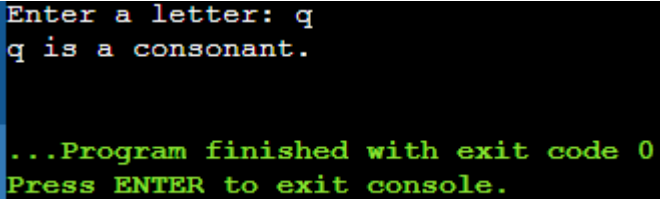
```
    cout << letter << " is not an alphabet." << endl;
```

```
}
```

```
return 0;
```

```
}
```

RESULT:



```
Enter a letter: q  
q is a consonant.  
  
...Program finished with exit code 0  
Press ENTER to exit console.
```