(a) Fetch a substring from a given string. Find its position and length.

Code (a):

```cpp
#include<iostream>
#include<string>
using namespace std;
int main()
{
    string str;
    string str2;
     cout << "Please enter the string: \n";
    getline(cin, str);
    // char c = str[0];
    // cout<<c<<endl;

    cout << "Please enter the substring to fetch : \n";
    getline(cin, str2);

    if(str.find(str2)>str.length())
    {
        cout<<"substring not found";
        cout<<endl;
    }
    else{

    cout<<"postition of substring is : \n";
    cout << str.find(str2) << endl;
    cout<<"length of substring is : \n";
    cout<<str2.length();
    cout<<endl;

    }
```

```
}
```

Output (a) :

```
DEBUG CONSOLE    PROBLEMS    OUTPUT    TERMINAL

cd "/Users/amzamani/Desktop/sem3/DS/ds lab/assgn02/" && g++ substring.cpp -o
bstring
Abus-Air:ds lab amzamani$ cd "/Users/amzamani/Desktop/sem3/DS/ds lab/assgn02
sem3/DS/ds lab/assgn02/"substring
Please enter the string:
abc def ghi
Please enter the substring to fetch :
xyz
substring not found
Abus-Air:assgn02 amzamani$ cd "/Users/amzamani/Desktop/sem3/DS/ds lab/assgn0
/sem3/DS/ds lab/assgn02/"substring
Please enter the string:
abc def ghi jkl
Please enter the substring to fetch :
ghi
postition of substring is :
8
length of substring is :
3
Abus-Air:assgn02 amzamani$ █
```

(b) Replacement of a substring with another.

Code (b):

```cpp
#include<iostream>
#include<string>
using namespace std;
int main()
{
    string str;
    string str2;
    string str3;
    cout << "Please enter the string: \n";
    getline(cin, str);
    // char c = str[0];
    // cout<<c<<endl;

    cout << "Please enter the substring to replace : \n";
    getline(cin, str2);
    if(str.find(str2)>str.length())
    {
        cout<<"substring not found";
        cout<<endl;
    }
    else{

    int pos = str.find(str2);
    int pos_last = str2.length();

    cout <<"Please enter the substring to replace with : \n";
    getline(cin,str3);

    cout<<pos<<endl;
```

```
    cout<<pos_last<<endl;


    str.replace(pos,pos_last,str3);


    cout<<endl;

    cout<<str;

    cout<<endl;

    }




}
```

Output (b):


```
Abus-Air:assgn02 amzamani$ cd "/Users/amzamani/Desktop/sem3/DS/ds lab/assgn
op/sem3/DS/ds lab/assgn02/"replacestr
Please enter the string:
abc musaddiq zamani
Please enter the substring to replace :
abu
substring not found
Abus-Air:assgn02 amzamani$ cd "/Users/amzamani/Desktop/sem3/DS/ds lab/assgn
op/sem3/DS/ds lab/assgn02/"replacestr
Please enter the string:
abc musaddiq zamani
Please enter the substring to replace :
abc
Please enter the substring to replace with :
abu
0
3

abu musaddiq zamani
Abus-Air:assgn02 amzamani$ 
```

(c) Concatenation of two strings.

Code (c) :

```cpp
#include<iostream>
#include<string>
using namespace std;
int main()
{
    string str;
    string str2;
    cout << "Please enter the 1st string: \n";
    getline(cin, str);
    // char c = str[0];
    // cout<<c<<endl;

    cout << "Please enter the 2nd string : \n";
    getline(cin, str2);
    cout<<"combined string :";
    cout<<str+str2;
    cout<<endl;


}
```

Output (c):

```
Abus-Air:assgn02 amzamani$ cd "/Users/amzamani/Desktop/sem3
DS/ds lab/assgn02/"concat
Please enter the 1st string:
abu
Please enter the 2nd string :
zamani
combined string :abu zamani
```