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Section	CSE - E

Lab 2(22/08/2023):

Q1. Write an encryption program such that we get the following input and output.

Input: computerscienceengineeringssrmuniversity

Output: gsqtyxivwgmirgiirkmriivmrkwvqyrmzivwmxc

```
#include<iostream>

#include<String>

using namespace std;

string shift_cipher(string str, int shift){
    int i=0;
    while(str[i]!='\0'){
        if((int(str[i])+shift)>122){
            str[i]=char(int(str[i])+shift-26);
        }
        else{
            str[i]=char(int(str[i])+shift);
        }
        i++;
    }
    return str;
}

int main(){
    string str="computerscienceengineeringssrmuniversity",cipher;
```

```

cipher=shift_cipher(str,4);
cout<<"The encrypted text is: "+cipher;
return 0;
}

```

OUTPUT:-

```

C:\Users\Prashant Srivastava\Desktop\5th Sem>cd "c:\Users\Prashant Srivastava\Desktop\5
The encrypted text is: gsqtyxivwgnirgiirkmriivmrkwvqymziwmx
c:\Users\Prashant Srivastava\Desktop\5th Sem\CSE 337 Cryptography\Lab 2>

```

Q2. Raju send an encrypted message (cipher text) “PHHW PH DIWHU WKH WRJD SDUWB” to Rani. Can you build decryption process and find out what is the message (plain text) send to Rani?

```

#include<iostream>
#include<String>
using namespace std;
string Decrypt(string str, int shift){
    int i=0;
    while(str[i]!='\0'){
        if(str[i]==' ')
        {
            i++;
            continue;
        }
        if((int(str[i])-shift)<65){
            str[i]=char(int(str[i])-shift+26);
        }
    }
}

```

```

        else{
            str[i]=char(int(str[i])-shift);
        }
        i++;
    }
    return str;
}

int main(){
    string str="PHHW PH DIWHU WKH WRJD SDUWB",cipher;
    cipher=Decrypt(str,3);
    cout<<"The decrypted text is: "+cipher;
    return 0;
}

```

OUTPUT:-

```

C:\Users\Prashant Srivastava\Desktop\5th Sem>cd "c:\Users\Prashant Srivastava\De
The decrypted text is: MEET ME AFTER THE TOGA PARTY
c:\Users\Prashant Srivastava\Desktop\5th Sem\CSE 337 Cryptography\Lab 2>

```