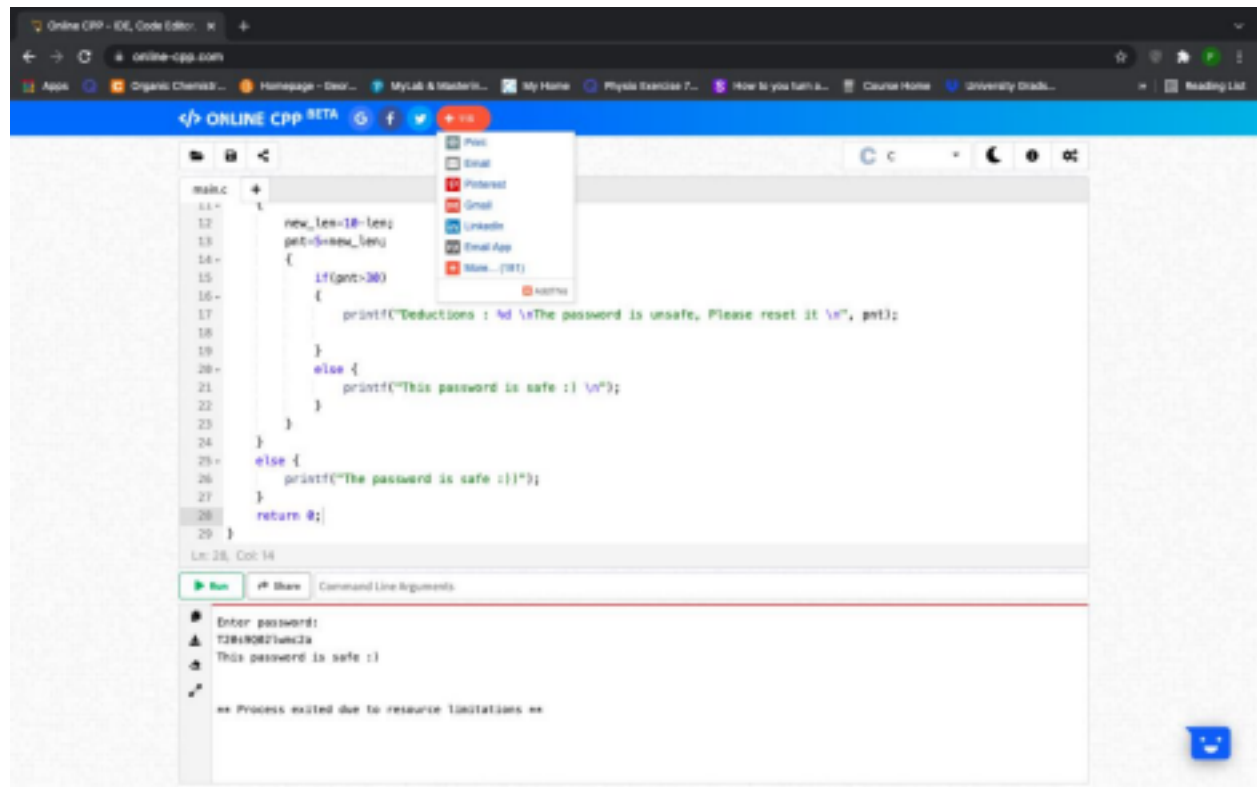


Lab 11

Q1:



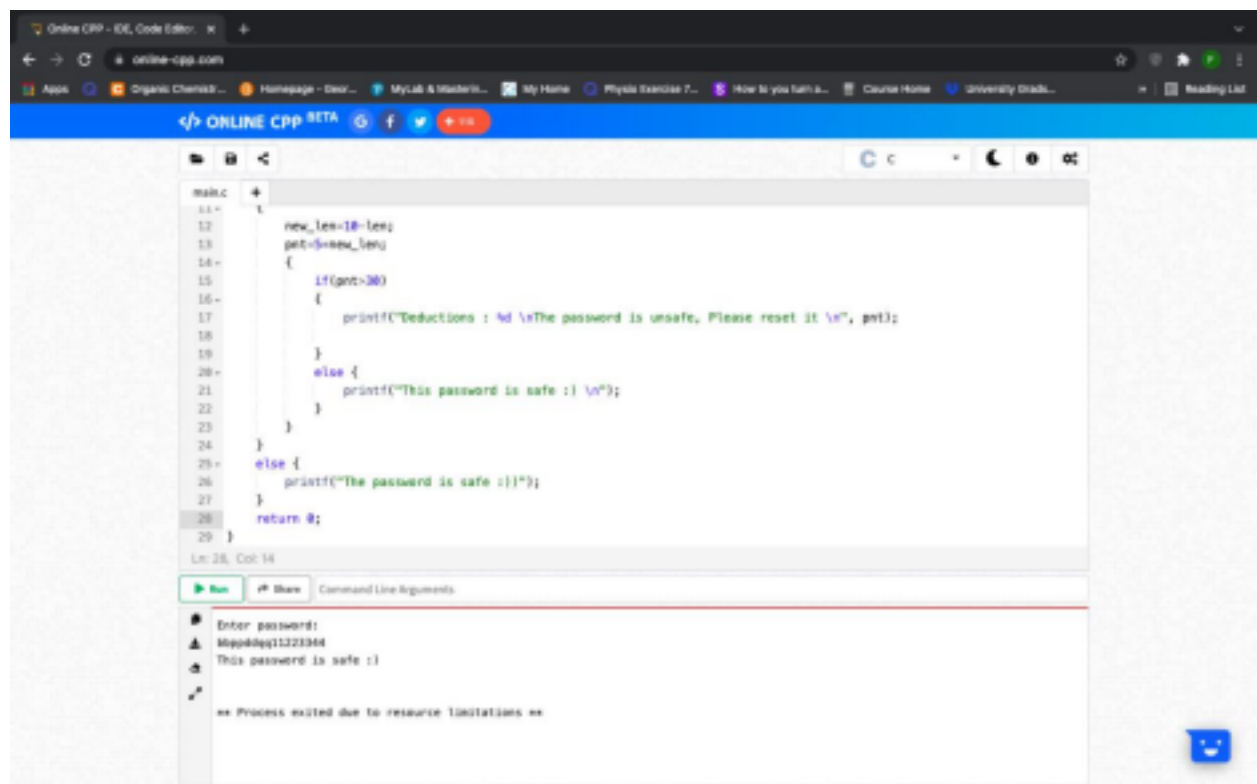
```
main.c
11
12 new_len=10-len;
13 get=>new_len;
14 {
15     if(get>30)
16     {
17         printf("Deductions : %d \nThe password is unsafe, Please reset it \n", get);
18     }
19     else {
20         printf("This password is safe :) \n");
21     }
22 }
23 }
24 }
25 else {
26     printf("The password is safe :|");
27 }
28 return 0;
29 }
```

Ln: 28, Col: 14

Run Share Command Line Arguments

Enter password:
T2Bt9082lunc3a
This password is safe :)

Process exited due to resource limitations



```
main.c
11
12 new_len=10-len;
13 get=>new_len;
14 {
15     if(get>30)
16     {
17         printf("Deductions : %d \nThe password is unsafe, Please reset it \n", get);
18     }
19     else {
20         printf("This password is safe :) \n");
21     }
22 }
23 }
24 }
25 else {
26     printf("The password is safe :|");
27 }
28 return 0;
29 }
```

Ln: 28, Col: 14

Run Share Command Line Arguments

Enter password:
Mppd4qg11223344
This password is safe :)

Process exited due to resource limitations

Online CPP - IDE, Code Editor

online-cpp.com

ONLINE CPP BETA

```
1 #include<string.h>
2 #include<stdio.h>
3 int main()
4 {
5     char ch[100];
6     int len,pos,new_len;
7     printf("Enter password: ");
8     scanf("%s", ch);
9     len=strlen(ch);
10    if(len<10)
11    {
12        new_len=10-len;
13        pos=0;new_len;
14        {
15            if(pos>30)
16            {
17                printf("Deductions : %d \n\nThe password is unsafe, Please reset it \n", pos);
18            }
19        }
20    }
```

Ln: 20, Col: 14

Run Share Command Line Arguments

Enter password:
SafePassw@rd123456
This password is safe :)

Process exited due to resource limitations

Online CPP - IDE, Code Editor

online-cpp.com

ONLINE CPP BETA

```
1 #include<string.h>
2 #include<stdio.h>
3 int main()
4 {
5     char ch[100];
6     int len,pos,new_len;
7     printf("Enter password: ");
8     scanf("%s", ch);
9     len=strlen(ch);
10    if(len<10)
11    {
12        new_len=10-len;
13        pos=0;new_len;
14        {
15            if(pos>30)
16            {
17                printf("Deductions : %d \n\nThe password is unsafe, Please reset it \n", pos);
18            }
19        }
20    }
```

Ln: 20, Col: 14

Run Share Command Line Arguments

Enter password:
unsafePass
The password is safe :)

Process exited due to resource limitations

Q1, P2:

Online CPP - IDE, Code Editor

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ONLINE CPP BETA

main.c

```
24- if(num_count == 0) {
25-     points -=20;
26- }
27- for(int i=0; i<len; i++) {
28-     for(int j = i+1; j<len; j++) {
29-         if(password[j] - password[i] == 1) {
30-             consecutive_count += 1;
31-         }
32-     }
33- }
34- if (consecutive_count >=2)
35- {
36-     points -=20;
37- }
38- if(points < 70) {
39-     printf("The points for your password out of 100 is: %d", points);
40-     printf("\nYour password is UNSAFE for your confidential data...");
41- }
```

Ln: 40, Col: 1

RunShareCommand Line Arguments

Enter the password:

unsafePass

The points for your password out of 100 is: 100

Your password is SAFE for your confidential data...

Process exited - Return Code: 0

Online CPP - IDE, Code Editor

online-cpp.com

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ONLINE CPP BETA

main.c

```
24- if(num_count == 0) {
25-     points -=20;
26- }
27- for(int i=0; i<len; i++) {
28-     for(int j = i+1; j<len; j++) {
29-         if(password[j] - password[i] == 1) {
30-             consecutive_count += 1;
31-         }
32-     }
33- }
34- if (consecutive_count >=2)
35- {
36-     points -=20;
37- }
38- if(points < 70) {
39-     printf("The points for your password out of 100 is: %d", points);
40-     printf("\nYour password is UNSAFE for your confidential data...");
41- }
```

Ln: 40, Col: 1

RunShareCommand Line Arguments

Enter the password:

safePass@1234567

The points for your password out of 100 is: 80

Your password is SAFE for your confidential data...

Process exited - Return Code: 0

```
Online CPP - IDE, Code Editor
online-cpp.com
App Organic Chemist... Homepage - Dear... MyLab & MasterK... My Home Physics Exercise 7... How to you turn a... Course Home University Studi... Reading List
ONLINE CPP BETA
main.c
24- if(num_count == 0) {
25-     points -= 20;
26- }
27- for(int i=0; i<len; i++) {
28-     for(int j = i+1; j<len; j++) {
29-         if(password[j] - password[i] == 1) {
30-             consecutive_count += 1;
31-         }
32-     }
33- }
34- if (consecutive_count >= 2)
35- {
36-     points -= 20;
37- }
38- if(points < 70) {
39-     printf("The points for your password out of 100 is: %d", points);
40-     printf("\nYour password is UNSAFE for your confidential data...");
41- }
Ln: 40, Col: 1
Run Share Command Line Arguments
Enter the password:
Mppdkg11223344
The points for your password out of 100 is: 80
Your password is SAFE for your confidential data...
Process exited - Return Code: 0
```

```
Online CPP - IDE, Code Editor
online-cpp.com
App Organic Chemist... Homepage - Dear... MyLab & MasterK... My Home Physics Exercise 7... How to you turn a... Course Home University Studi... Reading List
ONLINE CPP BETA
main.c
28-     for(int j = i+1; j<len; j++) {
29-         if(password[j] - password[i] == 1) {
30-             consecutive_count += 1;
31-         }
32-     }
33- }
34- if (consecutive_count >= 2)
35- {
36-     points -= 20;
37- }
38- if(points < 70) {
39-     printf("The points for your password out of 100 is: %d", points);
40-     printf("\nYour password is UNSAFE for your confidential data...");
41- }
42- else {
43-     printf("The points for your password out of 100 is: %d", points);
44-     printf("\nYour password is SAFE for your confidential data...");
45- }
Ln: 40, Col: 1
Run Share Command Line Arguments
Enter the password:
T2Bk0R2lucJa
The points for your password out of 100 is: 100
Your password is SAFE for your confidential data...
Process exited - Return Code: 0
```

Q2:

Online C++ IDE, Code Editor

online-cpp.com

App, Organic Chemist..., Homepage - Dear..., MyLab & Master..., My Home, Physics Exercise 7..., How to you turn a..., Course Home, University Studi..., Reading List

ONLINE CPP BETA

main.c

```
1 int main(void)
2 {
3     char string1[] = "radar";
4     char string2[] = "Gatenan sees name, garageman sees name tag";
5     char string3[] = "Some men interpret fine memos";
6     char string4[] = "Do geese see God";
7
8     if(is_palindrome(string1)) printf("%s\n- is a palindrome\n", string1);
9     else printf("%s\n- is not a palindrome\n", string1);
10    printf("\n");
11
12    if(is_palindrome(string2)) printf("%s\n- is a palindrome\n", string2);
13    else printf("%s\n- is not a palindrome\n", string2);
14    printf("\n");
15
16    if(is_palindrome(string3)) printf("%s\n- is a palindrome\n", string3);
17    else printf("%s\n- is not a palindrome\n", string3);
18    printf("\n");
19
20    if(is_palindrome(string4)) printf("%s\n- is a palindrome\n", string4);
21    else printf("%s\n- is not a palindrome\n", string4);
22    printf("\n");
23
24    return 0;
25 }
```

Ln: 12, Col: 37

Run, Share, Command Line Arguments

radar
- is a palindrome

Gatenan sees name, garageman sees name tag
- is not a palindrome

Some men interpret fine memos
- is not a palindrome

Do geese see God
- is not a palindrome

Online C++ IDE, Code Editor

online-cpp.com

App, Organic Chemist..., Homepage - Dear..., MyLab & Master..., My Home, Physics Exercise 7..., How to you turn a..., Course Home, University Studi..., Reading List

ONLINE CPP BETA

main.c

```
22 if(is_palindrome(string3)) printf("%s\n- is a palindrome\n", string3);
23 else printf("%s\n- is not a palindrome\n", string3);
24 printf("\n");
25
26 if(is_palindrome(string4)) printf("%s\n- is a palindrome\n", string4);
27 else printf("%s\n- is not a palindrome\n", string4);
28 printf("\n");
29
30 return 0;
31 }
32
33 bool is_palindrome(char string[])
34 {
35     int len = strlen(string);
36     int middle = len / 2;
37     for(int i = 0; i < middle; i++)
38         if(string[i] != string[len-i-1]) return false;
39     return true;
40 }
```

Ln: 12, Col: 37

Run, Share, Command Line Arguments

Gatenan sees name, garageman sees name tag
- is not a palindrome

Some men interpret fine memos
- is not a palindrome

Do geese see God
- is not a palindrome

Q3:

Online CPP - IDE, Code Editor. 372 country code - Google S...
online-cpp.com
ONLINE CPP BETA
main.c
0 };
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2
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4
5
6
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9
10 int
11 main (int argc, char* argv[]) {
12 int intl_code, i;
13 const struct dialing_code country_codes[] = {
14 {"Argentina", 54}, {"Bangladesh", 880},
15 {"Brazil", 55}, {"Burm (Myanmar)", 95},
16 {"Czech Republic", 420}, {"Colombia", 57},
17 {"Congo, Dem.", 243}, {"Egypt", 20},
18 {"Estonia", 372}, {"France", 33},
19 {"Germany", 49}, {"Iceland", 354},
20 {"Indonesia", 62}, {"Iran", 90},
21 {"Italy", 39}, {"Japan", 81},
22 {"Mexico", 52}, {"Norway", 47},
23 {"Pakistan", 92}, {"Philippines", 63},
24 {"Poland", 48}, {"Russia", 7},
25 };
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Online CPP - IDE, Code Editor. 372 country code - Google S...
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