1.

#include <stdio.h>

#include <time.h>

int calcFine(int d\_day, int d\_mon, int d\_year, int r\_day, int r\_mon, int r\_year) {

time\_t d\_time = mktime(&(struct tm) {.tm\_mday = d\_day,

.tm\_mon = d\_mon - 1,

.tm\_year = d\_year - 1900});

time\_t r\_time = mktime(&(struct tm){.tm\_mday = r\_day,

.tm\_mon = r\_mon - 1,

.tm\_year = r\_year - 1900});

int days\_late = (int)(difftime(r\_time, d\_time) / (60 \* 60 \* 24));

return days\_late > 0 ? days\_late \* 2 : 0;

}

int main() {

int d\_day, d\_mon, d\_year, r\_day, r\_mon, r\_year;

printf("Enter the due date (day month year): ");

scanf("%d %d %d", &d\_day, &d\_mon, &d\_year);

printf("Enter the return date (day month year): ");

scanf("%d %d %d", &r\_day, &r\_mon, &r\_year);

int fine = calcFine(d\_day, d\_mon, d\_year, r\_day, r\_mon, r\_year);

if (fine > 0) {

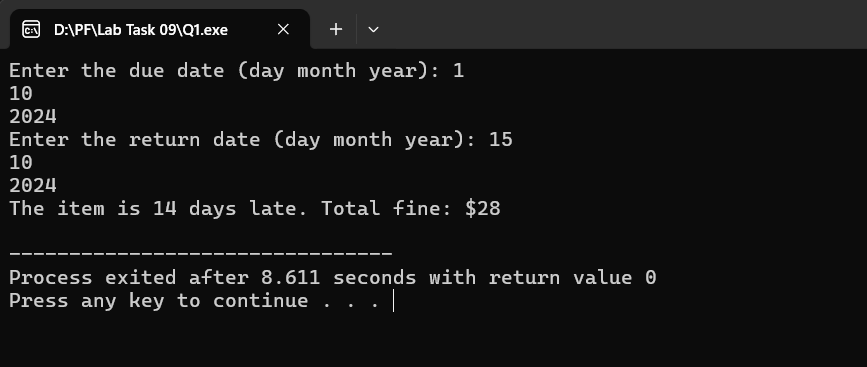
printf("The item is %d days late. Total fine: $%d\n", fine / 2, fine);

} else {

printf("No fine. The item is returned on time.\n");

}

}



2.

#include<stdio.h>

#include<string.h>

void Palin()

{

int i,j,flag;

char str[5][20];

printf("Enter your list\n");

for(i=0;i<5;i++)

{

scanf("%s", str[i]);

}

for(i=0; i<5; i++)

{

flag =0;

for(j=0;j<strlen(str[i])/2;j++)

{

if(str[i][j] == str[i][strlen(str[i])-j-1])

{

flag = 1;

}

else

{

flag = 0;

break;

}

}

printf("Output:\n");

(flag)? printf("Palindrome\n"): printf("Not Palindrome\n");

}

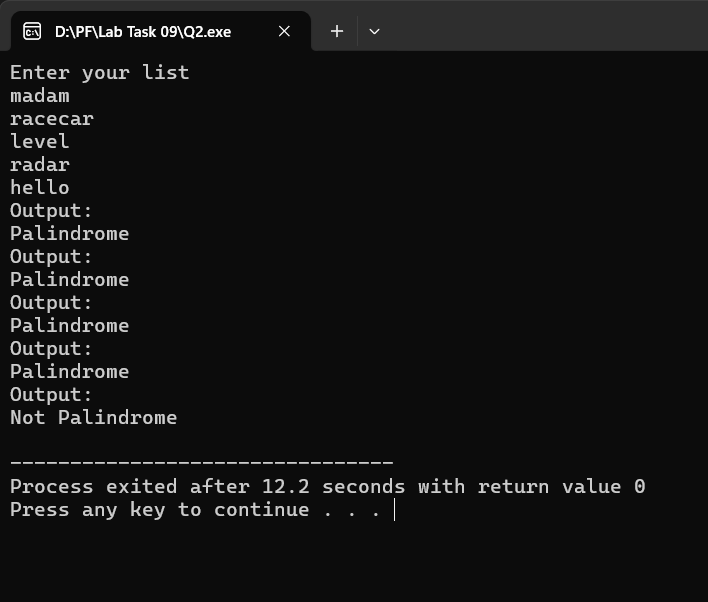
}

int main()

{

Palin();

}



3.

#include<stdio.h>

void encryptMessage(char str[100], int n)

{

int i;

for(i=0;str[i] != '\0'; i++)

{

str[i] += n;

}

printf("Encrypted: %s\n", str);

}

void decryptMessage(char str[100], int n)

{

int i;

for(i=0;str[i] != '\0'; i++)

{

str[i] -= n;

}

printf("Decrypted: %s\n", str);

}

int main()

{

char str[100];

printf("Enter your string: ");

scanf("%s", str);

int n;

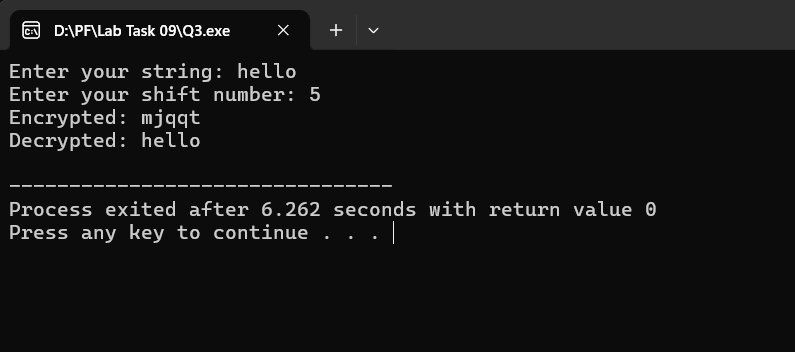
printf("Enter your shift number: ");

scanf("%d", &n);

encryptMessage(str, n);

decryptMessage(str, n);

}



4.

#include<stdio.h>

int isprime(int n)

{

int i, flag =1;

for(i=2;i<n;i++)

{

if(n%i == 0)

{

flag = 0;

}

}

return flag;

}

int main()

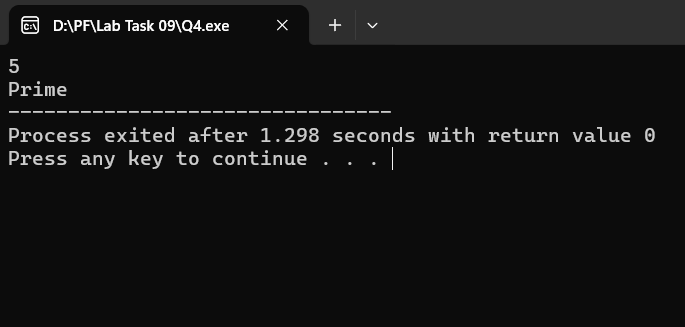
{

int n;

scanf("%d", &n);

(isprime(n))? printf("Prime") : printf("Not Prime");

}



5.

#include<stdio.h>

void com(int \*array1, int \*array2, int len1, int len2) {

int \*ptr1, \*ptr2;

int found = 0;

for (ptr1 = array1; ptr1 < array1 + len1; ptr1++) {

for (ptr2 = array2; ptr2 < array2 + len2; ptr2++) {

if (\*ptr1 == \*ptr2) {

printf("%d ", \*ptr1);

found = 1;

break;

}

}

}

}

int main() {

int array1[] = {1, 2, 3, 4, 5};

int array2[] = {4, 1, 8, 9, 0};

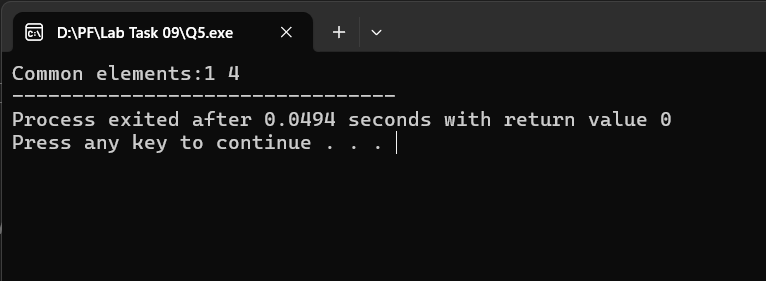
int len1 = sizeof(array1) / sizeof(array1[0]);

int len2 = sizeof(array2) / sizeof(array2[0]);

printf("Common elements:");

com(array1, array2, len1, len2);

}



6.

#include<stdio.h>

#include<string.h>

void reverse(char \*str)

{

int len = strlen(str),i;

char temp[len + 1];

for(i = 0; i < len; i++) {

temp[i] = str[len - 1 - i];

}

temp[len] = '\0';

printf("%s", temp);

}

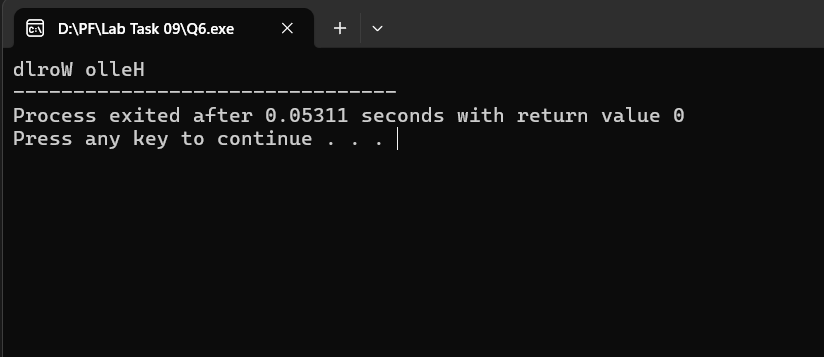
int main()

{

char str[] = "Hello World";

reverse(str);

}



7.

#include<stdio.h>

#include<math.h>

float area(int r)

{

float ar = M\_PI \* pow(r, 2);

return ar;

}

int main()

{

int r;

printf("Enter radius: ");

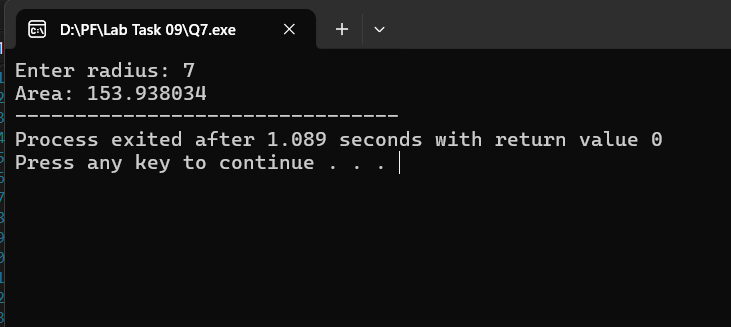
scanf("%d", &r);

float result = area(r);

printf("Area: ");

printf("%f", result);

}



8.

#include <stdio.h>

int minmax(int \* arr)

{

int \*ptr = arr;

int size = sizeof(arr) / sizeof(arr[0]);

int min = \*ptr, max = \*ptr;

for (ptr = arr; ptr < arr + size; ptr++) {

if (\*ptr < min) {

min = \*ptr;

}

if (\*ptr > max) {

max = \*ptr;

}

}

printf("Min %d\n", min);

printf("Max %d", max);

}

int main() {

int arr[] = {99,6,8,1};

minmax(arr);

}

