

Lab Report

Team Name: NWU_SHADOW_ERRORS

Team Members

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Submitted To:

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```
main(): int
                       4 0 b D
 main.c X main.c X
            #include <stdio.h>
            #include <string.h>
            int main() {
      4 5 6 7 8 9
                char s[100];
                printf ("Enter Anything Above Mentioned: ");
                while (scanf ("%s", s) == 1) {
                    int len = strlen(s);
                    int i, j;
                    char a[] = "A 3 HIL JM 0
                                                  2TUVWXY5";
     10
                    char b[] = "01SE Z 8 ";
     11
                    int var1 = 0, reg1 = 0;
     12
                    for (i = 0, j = len-1; i \le j; i++, j--) {
     13
                        if(s[i] != s[j])
     14
                            var1 = 1;
     15
                        if(s[i] >= 'A' && s[i] <= 'Z') {
     16
                            if(s[j] != a[s[i]-'A'])
     17
                                reg1 = 1;
     18
                          else
     19
                            if(s[j] != b[s[i]-'0'])
     20
                                reg1 = 1;
     21
     22
     23
                    printf("%s -- is ", s);
     24
                    if(var1) {
     25
                        if (reg1)
     26
                            puts ("Not Palindrome.");
     27
                        else
                            puts ("This is A Mirrored String.");
     28
     29
                      else
     30
                        if (reg1)
                            puts ("This is A Regular Palindrome.");
     31
     32
                        else
     33
                            puts ("This is A Mirrored Palindrome.");
     34
     35
                    puts("");
     36
     37
                return 0;
     38
 <
```

LOCKS\Lab_Report_2\main.c

OUTPUTS

C. (Osers (tusine (Desktop) project Java (Din) Debug (proj	cet Javarene
Enter Anything Above Mentioned: ABCDEDCBA ABCDEDCBA is This is A Regular Palindrome	
*C:\Users\tusme\Desktop\project java\bin\Debug\pro	ject java.exe"
Enter Anything Above Mentioned: ISPAHANI ISPAHANI is Not Palindrome.	
_	
C:\Users\tusme\Desktop\project java\bin\Debug\pr	oject java.exe
Enter Anything Above Mentioned: ATOYOTA ATOYOTA is This is A Mirrored Palindrome	



C\Users\tusme\Desktop\projectjava\bin\Debug\projectjava.exe

Enter Anything Above Mentioned: NORTHWESTERNUNIVERSITY

NORTHWESTERNUNIVERSITY -- is Not Palindrome.

"C:\Users\SAKIB\Documents\CODEBLOCKS\Lab_Report_2\bin\Debug\Lab_Report_2.exe"

Enter Anything Above Mentioned: NOTAPALINDROME

NOTAPALINDROME -- is Not Palindrome.

```
# include (sidio.h)
# in clude ( straing. h)
int main () {
   Charz 5 [100];
   Prointy (" Entere Anything Above Mentioned: ");
   while (scanf ("1.5", 5) = = 1) {
       ind len = 6trzlen(3);
        int int;
        Chare a [] = "A 3 HIL JM 0 2TUVWXY5";
        Charc 6 [] = " 015E Z
        int varca = 0; reg1 = 0;
       for (\hat{I}=0, \hat{J}=len-1; \hat{I}=\hat{J}; \hat{I}++, \hat{J}--)
            if (s[i] ! = 6[i])
               Var 1;
             if (5[i] >= 'A' 88 5[i] <= 'Z')}
                  if (5 [j]! = a [3 [i] - 'A'])
                       rceg 1 = 1;
                   else {
                   if (5 [j] ! = b [3 [i] - '0'])
                        rce9 1 = 1;
            Printd ("1.3 - - 95", 5);
             if (varca) }
```

```
if (mega)
     Puts (" Not Palindrome.");
  e15e
   Puts ("This is A Minnoned String.");
else of megal
    Puts ("This is A Regulare Palindreome.");
    else
    Puts ("This is A Mirarcorred Palindrame.");
  Puts (" ");
  returno;
```

Algorithm :

Above program is for to check a given string is palisted nome on not.

All logic is written in the main() method.

In main!) method we have "I integer variables",

j, neg and var." And one chan variable "str" which

is an annay of character.

Palindrome of string means we can read it either from left to right on right to left it appears same.

So check it we are comparing first char with last char and second char with second last char using "for loop" until we reach at middle.

If both sounders are same, print " palisodrome number".

Else preint "not palindrome mumber".

```
*Pseudocode:
1. Start
2. Input: Read number to check as len
3. Take Int i.i
4. Take int var1=0, reg1=0
5. for (i=0, j= len-1; i == j; i++, j--) }
      if (S[i]!=S[i])
        Var 1 = 1;
        if(S[i] /= 'A' bbs[i] /= 'z') 5
         if (S[>]!= a[S[i]-'A'])
            Treg 1 = 1;
          3 else 4
            if (s[i]!=b[s[i]-'0'])
               Treg ]= 1;
6. END LOOP
      if (Reg 1)
          PUts ("Not Palindrome");
      else
          PU+S ("This is A MIRRORED STRING"):
```

Contribution of code:

Reajul Islam Sajol

Time: About 1.30 hour

Contribution of pseudocode: Sahibuzzaman Emon Time: About 1 hour

Contribution of algorithm: Tasmuva Sultana Tusme Time: About 45 minutes

Me and my team members solve the problem together. First, I read the problem and my team members already write the algorithm and pseudocode. So, it was easy for me to write the code. Then, I write the solution of the problem in a programming.