Assignment-18 Solutions

Q-1

Ans-1

// Write a function to calculate the length of the sting

#include<stdio.h>

#include<string.h>

void length();

int main()

{

length();

return 0;

}

void length()

{

char str[20]= "Ram";

int i;

for(i=0;str[i];i++);

printf("%d",i);

}

Q-2

Ans-

// Write a function to reverse a string

#include<stdio.h>

#include<string.h>

void reverse();

int main()

{

reverse();

return 0;

}

void reverse()

{

char a[]="PRADEEP";

int i,j=strlen(a)-1;

int temp;

while (i<=j)

{

temp= a[i];

a[i]=a[j];

a[j]=temp;

i++;

j--;

}

printf(" Reverse of string=%s",a);

}

Q-3

Ans-

// Write a function to compare two string

#include<stdio.h>

#include<string.h>

void compare();

int main()

{

compare();

return 0;

}

void compare()

{

char first[100], second[100];

printf("Enter first string\n");

scanf("%s",first);

printf("Enter second string\n");

scanf("%s",second);

if(strcmp(first,second)==0)

printf("\nEqual");

else

printf("Not equal");

}

Q-4

Ans-

// Write a function to transform string into uppercase

#include<stdio.h>

#include<string.h>

void uppercase();

int main()

{

uppercase();

return 0;

}

void uppercase()

{

char str[20];

int i;

printf("Enter any string\n");

gets(str);

for(i=0;str[i];i++)

{

if(str[i]>='a' && str[i]<='z')

str[i]=str[i]-32;

}

printf("%s",str);

}

Q-5

Ans-

// Write a function to transform string into uppercase

#include<stdio.h>

#include<string.h>

void lowercase();

int main()

{

lowercase();

return 0;

}

void lowercase()

{

char str[20];

int i;

printf("Enter any string\n");

gets(str);

for(i=0;str[i];i++)

{

if(str[i]>='A' && str[i]<='Z')

str[i]=str[i]+32;

}

printf("%s",str);

}

Q-6

Ans-

// Write a function to check whether a given string is an alphanumeric or not

#include<stdio.h>

#include<string.h>

void alphanumeric();

int main()

{

alphanumeric();

return 0;

}

void alphanumeric()

{

char str[20];

int A=0;

int D=0;

int i;

printf("Enter any string\n");

gets(str);

for(i=0;str[i];i++)

{

if(str[i]>= 'a' && str[i]<= 'z' || str[i]>= 'A' && str[i]<= 'Z')

A=1;

if( str[i]>= '0' && str[i]<= '9')

D=1;

}

if(A==D==1) // A==1&& D==1

printf("%s is alphanumeric",str);

else

printf("%s is not alphanumeric",str);

}

Q-7

Ans-

// Write a function to check whether a given String is palindrome or not

#include<stdio.h>

#include<string.h>

void palindrome();

int main()

{

palindrome();

return 0;

}

void palindrome()

{

char str[20];

int l;

int i;

printf("Enter a string to check palindrome or not\n");

gets(str);

l=strlen(str);

for(i=0;i<l/2;i++)

{

if(str[i]!= str[l-1-i])

{

printf("%s Not a palindrome",str);

break;

}

}

if(i==l/2)

printf("%s is palindrome",str);

}

Q-8

Ans-

// Write a function to count number of words in a given String

#include<stdio.h>

#include<string.h>

void count\_word();

int main()

{

count\_word();

return 0;

}

void count\_word()

{

char str[100];

int i;

int word=1;

printf("Enter any string\n");

gets(str);

for(i=0;str[i];i++)

{

if(str[i]==' ')

word++;

}

printf("%d",word);

}

Q-9

Ans-

#include<stdio.h>

void reverse\_string(char str[], int start, int end)

{

char temp;

while(start<end)

{

temp=str[start];

str[start]=str[end];

str[end]=temp;

start++;

end--;

}

}

int main()

{

char str[]="My name is Pradeep";

int start, end;

end=0;

start=0;

while(str[end])

{

for(end=start;str[end]&&str[end]!=' ';end++);

reverse\_string(str, start, end-1);

start=end+1;

}

printf("%s ",str);

return 0;

}

Q-10

Ans-

#include <stdio.h>

#include <string.h>

int main()

{

char string[] = "RABBA";

int count;

printf("Duplicate characters in a given string: \n");

//Counts each character present in the string

for(int i = 0; i < strlen(string); i++) {

count = 1;

for(int j = i+1; j < strlen(string); j++) {

if(string[i] == string[j] && string[i] != ' ') {

count++;

//Set string[j] to 0 to avoid printing visited character

string[j] = '0';

}

}

//A character is considered as duplicate if count is greater than 1

if(count > 1 && string[i] != '0')

printf("%c\n", string[i]);

}

return 0;

}