Q1

// Write a program to scan string from user then scan a single character

// and search it in a accepted string.

```
#include<stdio.h>
#include<string.h>

int main(){
   char str[100], ch;
   printf("Enter a string: ");
   scanf("%s", str);

   printf("Enter a character to search: ");
   scanf(" %c", &ch);

   char *pos = strchr(str, ch);

   if (pos) {
      printf("Character '%c' found at position %ld\n", ch, pos-str + 1);
   } else {
      printf("Character '%c' not found in the string.\n", ch);
   }

   return 0;

}
```

Q2

// WAP Replace all Occurrences of 'a' with $ in a String

```
#include<stdio.h>
#include<string.h>

int main(){
   char str[100], ch,replace;
   printf("Enter a string: ");
   scanf("%s", str);

   printf("Enter a character to search: ");
   scanf(" %c", &ch);

   printf("Enter a replacemet character: ");
   scanf(" %c", &replace);

   char *pos = strchr(str, ch);

   if (pos) {
      *pos=replace;
      printf("Updated string: %s\n", str);
   } else {
      printf("Character '%c' not found in the string.\n", ch);
   }

   return 0;
}
```

Q3

// WAP to Remove the nth Index Character from a Non-Empty String

```
#include<stdio.h>
#include<string.h>

int main() {
   char str[100];
   int n, len;

   printf("Enter a string: ");
   scanf("%s", str);

   printf("Enter the index to remove: ");
   scanf("%d", &n);

   len = strlen(str);

   if (n < 0 || n >= len) {
      printf("Invalid index!\n");
   } else {
      memmove(&str[n], &str[n + 1], len - n);
      printf("Updated string: %s\n", str);
   }

   return 0;
}
```

Q4

```
// WAP to Form a New String where the First Character and the Last Character have
// been Exchanged

#include<stdio.h>
#include<string.h>

int main(){
   char str[100];
   int n;

   printf("Enter a string: ");
   scanf("%s", str);
   n=strlen(str)-1;

   if(n>1){
      char temp=str[0];
      str[0]=str[n];
      str[n]=temp;
   }
   printf("Updated string %s",str);
   return 0;
}
```

Q5

```
// WAP to Count the Number of Vowels in a String
#include<stdio.h>
#include<string.h>

int main(){
   char str[100];
   int count=0;

   printf("Enter a string: ");
   scanf("%s", str);

   for(int i=0;str[i]!='\0';i++){
      char ch = tolower(str[i]);
      if(strchr("aeiou",ch))
      count++;
   }
   printf("Number of Vowels in a String : %d",count);
}
```

Q6

```
// WAP to Take in a String and Replace Every Blank Space with special symbol.
#include<stdio.h>
#include<string.h>

int main(){
   char str[100],symbol;

   printf("Enter a string: ");
   scanf("%[^\n]", str);

   printf("Enter symbol u want add: ");
   scanf(" %c", &symbol);

   for(int i=0;i<strlen(str);i++){
      if(str[i]==' '){
         str[i]=symbol;
      }
   }
   printf("Sentense after adding symbol %s",str);

}
```

Q7

// WAP to Remove the Characters of Odd Index Values in a String

```
#include <stdio.h>
#include <string.h>

int main() {
   char str[100], result[100];
   int j = 0;

   printf("Enter a string: ");
   scanf("%s", str);

   for (int i = 0; str[i] != '\0'; i++) {
      if (i % 2 == 0) {
         result[j++] = str[i];
      }
   }
   result[j] = '\0';

   printf("Updated string: %s\n", result);
   return 0;
}
```

Q8

// WAP to Calculate the Number of Words Present in a String

```
#include <stdio.h>

int main() {
   char str[200];
   int count = 1;

   printf("Enter a string: ");
   scanf(" %[^\n]", str);

   for (int i = 0; str[i] != '\0'; i++) {
      if (str[i] == ' ' && str[i + 1] != ' ' && str[i + 1] != '\0') {
         count++;
      }
   }

   printf("Number of words: %d\n", count);
   return 0;
}
```

Q9

```
// WAP to Take in Two Strings and Display the Larger String without Using Built-in
// Functions

#include <stdio.h>

int string_length(char str[]) {
    int len = 0;
    while (str[len] != '\0') {
        len++;
    }
    return len;
}

int main() {
    char str1[100], str2[100];

    printf("Enter first string: ");
    scanf("%s", str1);

    printf("Enter second string: ");
    scanf("%s", str2);

    if (string_length(str1) > string_length(str2)) {
        printf("Larger string: %s\n", str1);
    } else {
        printf("Larger string: %s\n", str2);
    }

    return 0;
}
```

Q10

// Write a program to check the string is palindrome or not.

```
#include <stdio.h>
#include <string.h>

int main() {
   char str[100], rev[100];
   int len, i, j;

   printf("Enter a string: ");
   scanf("%s", str);

   len = strlen(str);

   for (i = len - 1, j = 0; i >= 0; i--, j++) {
      rev[j] = str[i];
   }
   rev[j] = '\0';

   if (strcmp(str, rev) == 0) {
      printf("The string is a palindrome.\n");
   } else {
      printf("The string is not a palindrome.\n");
   }

   return 0;
}
```