1. Passing array as an argument of a function:

```c
#include <stdio.h>
double getAverage(int arr [], int size){
    int i;
    double avg, sum=0;
    for (i=0; i< size; i++){
     sum += arr[i] ;
   }
   avg = sum/size;
   return avg;
}

void main()
{
  int balance [5] = {1000, 2, 3, 17, 50};
  double avg;
  avg = getAverage( balance , 5 );
  printf("Average is: %f ", avg);
}
```

2. Passing string as an argument of a function and update that string within the function:

```c
#include <stdio.h>
#include<ctype.h>
#define SIZE 100

void changeCase(char s[])
{
    int i;

    for (i = 0; s[i] != NULL; i++)
    {
        if (isupper(s[i]))
            s[i] = tolower(s[i]);
        else if (islower(s[i]))
            s[i] = toupper(s[i]);
    }
}

void main ()
{
        char str[SIZE];

        printf ("Enter a string of length < %d : ", SIZE);
        gets(str);

        changeCase(str);
        puts(str);
}
```

Exercise:

1. **Write a C program that counts the number of vowels in an input string.**
2. **Write a C program that reads a string, create a new string containing all the characters the input string except the vowels in it, and then prints the new string.**
   Sample input/output:
   Enter a string: **Hello how are you?**
   Output string: Hll hw r y?
3. **Write a C program to print all unique letters in an input string.**
   Sample input/output:
   Enter a string: **Hello how are you?**
   Unique letters in the input string (ignoring differences between lowercase & uppercase letters):
   a, e, h, l, o, r, u, w, y
4. **Write a program that reads a string from user and then prints the number of times different letters appear in that string.**
   Sample input/output:
   Enter a string: **Hello how are you?**
   Frequencies of letters in the input string:
   a/A: 1, e/E: 2, h/H: 2, l/L: 2, o/O: 3, r/R: 1, u/U: 1, w/W: 1, y/Y: 1,

Assignment:

1. **Write a C program that deletes all duplicate letters from an input string.**
2. **Write a C program to put even and odd elements of an array in two separate arrays and show them.**
   Sample input/output:
   Input size of the array: **10**
   Input elements in array: **0 1 2 3 4 5 6 7 8 9**
   Even elements in array: 0 2 4 6 8
   Odd elements in array: 1 3 5 7 9
3. **Write a function that searches for a character in a string. The function should print true if found, otherwise print false.**

```
void search(char arr[], char key);
```

Sample Output 1:
```
Enter String: bangladesh
Search Key: g
Found
```

Sample Output 2:
```
Enter String: bangladesh
Search Key: v
Not found
```

4. **Write a function that returns the number of times a value appears in an array.**

```
int countSearchKey(int arr[], int size, int key);
```

Sample Output 1:
```
Enter array size: 5
Array Elements: 7 3 4 8 1
Search Key: 4
Search Key appears 1 times
```

Sample Output 2:
```
Enter array size: 7
Array Elements: 2 3 2 9 2 10 6
Search Key: 2
Search Key appears 3 times
```