

Programming Fundamentals

Lab Report

Lab 13



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Class	Programming Fundamentals CSC103 (BCE-2B)
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In Lab Tasks

Question no: 1

Write a C program that initialize a structure called “mobile”. Instance of that object should contain fields vendor i.e. Huawei, Samsung or Nokia, owner name and its IMIE (International Mobile Equipment Identity) number. User should enter the minimum of two records. And print these records using pointers.

Solution:

The Code for the following code is attached below,

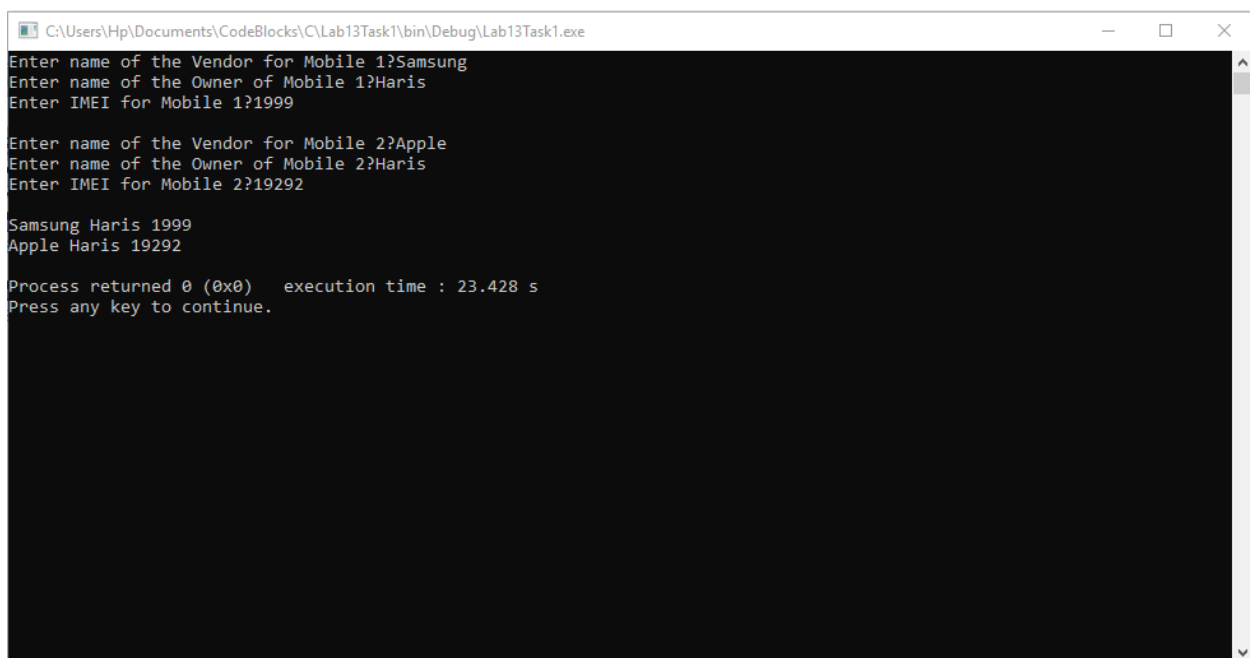
```
1  #include <stdio.h>
2  #include <stdlib.h>
3  struct mobile
4  {
5      char vendor[20];
6      char owner[20];
7      int IMEI;
8  }
9  }a[2] ;
10
11 int main()
12 {
13     int i;
14     char m1[20];
15     char m2[20];
16     struct mobile *ptr;
17     struct mobile *ptr1;
18
19     for(i=1;i<=2;i++)
20     {
21
22         printf("Enter name of the Vendor for Mobile %d?",i);
23         scanf("%s",&m1);
24         strcpy(&a[i].vendor, m1);
25
26
27         printf("Enter name of the Owner of Mobile %d?",i);
28         scanf("%s",&m2);
29         strcpy(&a[i].owner, m2);
30     }
```

```

31         strcpy(&a[i].vendor, m1);
32         printf("Enter IMEI for Mobile %d?", i);
33         scanf("%d", &a[i].IMEI);
34
35         printf("\n");
36     }
37     ptr=&a[1];
38     ptr1=&a[2];
39
40
41
42     printf("%s %s %d \n", ptr->vendor, ptr->owner, ptr->IMEI);
43     printf("%s %s %d \n", ptr1->vendor, ptr1->owner, ptr1->IMEI);
44 }
45

```

The Result of the following code is attached below:



```

C:\Users\Hp\Documents\CodeBlocks\C\Lab13Task1\bin\Debug\Lab13Task1.exe
Enter name of the Vendor for Mobile 1?Samsung
Enter name of the Owner of Mobile 1?Haris
Enter IMEI for Mobile 1?1999

Enter name of the Vendor for Mobile 2?Apple
Enter name of the Owner of Mobile 2?Haris
Enter IMEI for Mobile 2?19292

Samsung Haris 1999
Apple Haris 19292

Process returned 0 (0x0)   execution time : 23.428 s
Press any key to continue.

```

Question no: 2(A)

Write a C program that has structure called person. Instance of that structure should contain name, weight and age of that person. Program should take number of persons. Then use dynamic memory allocation to have that memory for record. User should enter the minimum specified number of records. And print these records.

Solution

The code is shown below for the given program,

```
1  #include <stdio.h>
2  #include <stdlib.h>
3
4  struct person
5  {
6      char name[20];
7      int age;
8      float weight;
9  };
10
11
12  int main()
13  {
14      int x;
15      char ml[20];
16      printf("Enter the Number of Persons\n");
17      scanf("%d",&x);
18      int *ptr;
19      ptr= (struct person *) malloc(x * sizeof(struct person));
20      struct person record[x];
21
22      for(int i=1; i<=x ;i++)
23      {
24          printf("Enter name for person %d?",i);
25          scanf("%s",&ml);
26          strcpy(&record[i].name, ml);
27
28          printf("Enter the age of person %d?",i);
29          scanf("%d",&record[i].age);
30      }
```

```

31         printf("Enter the weight of person %d?",i);
32         scanf("%f",&record[i].weight);
33         printf("\n");
34     }
35
36
37     printf("Enter the minimum record you want to print?");
38     scanf("%d",&x);
39
40     for(int i=1; i<=x ;i++)
41     {
42         printf("\nName of person %d: %s\n",i,record[i].name);
43         printf("Age of person %d: %d\n",i,record[i].age);
44         printf("Weight of person %d: %f\n",i,record[i].weight);
45     }
46
47     return 0;
48 }
49

```

The Result of the following code is attached below:

```

C:\Users\Hp\Documents\CodeBlocks\C\Lab13Task2\bin\Debug\Lab13Task2.exe
Enter the Number of Persons
3
Enter name for person 1?Haris
Enter the age of person 1?20
Enter the weight of person 1?70

Enter name for person 2?Hadia
Enter the age of person 2?29
Enter the weight of person 2?99

Enter name for person 3?Manahi
Enter the age of person 3?19
Enter the weight of person 3?65

Enter the minimum record you want to print?1

Name of person 1: Haris

Age of person 1: 20

Weight of person 1: 70.000000

Process returned 0 (0x0)   execution time : 64.792 s
Press any key to continue.

```

THE END

*there was no post lab for this lab.