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...AndUnions\05-ArrayOfStructs\02-UserInput\ArrayOfStructs.c
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1
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```
1 #include <stdio.h>
 2 #include <ctype.h>
 3
 4 #define NUM_EMPLOYEES 5 // Simply Change this constant value to have as many
     number of Employee Records as you please ...
 5
 6 #define NAME LENGTH 100
 7 #define MARITAL STATUS 10
 9 struct Employee
10 {
11
        char name[NAME_LENGTH];
12
       int age;
13
       char sex;
14
       float salary;
15
       char marital_status;
16 };
17
18 int main(void)
19 {
20
       //function prototype
21
       void MyGetString(char[], int);
22
23
       //variable delarations
24
        struct Employee EmployeeRecord[NUM_EMPLOYEES]; //An array of <NUM_EMPLOYEES> >
          structs - Each being type 'struct Employee'
25
       int i;
26
27
       //code
28
       // ***** USER INPUT INITIALIZATION OF ARRAY OF 'struct Employee' *****
29
       for (i = 0; i < NUM_EMPLOYEES; i++)</pre>
30
            printf("\n\n\n\n");
31
            printf("****** DATA ENTRY FOR EMPLOYEE NUMBER %d ********\n", (i + →
             1));
33
            printf("\n\n");
34
            printf("Enter Employee Name : ");
35
36
            MyGetString(EmployeeRecord[i].name, NAME_LENGTH);
37
38
            printf("\n\n\n");
39
            printf("Enter Employee's Age (in years) : ");
40
            scanf("%d", &EmployeeRecord[i].age);
41
            printf("\n\n");
42
43
            printf("Enter Employee's Sex (M/m For Male, F/f For Female) : ");
44
            EmployeeRecord[i].sex = getch();
45
            printf("%c", EmployeeRecord[i].sex);
46
            EmployeeRecord[i].sex = toupper(EmployeeRecord[i].sex);
47
            printf("\n\n\n");
48
            printf("Enter Employee's Salary (in Indian Rupees) : ");
49
```

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                                                                                        2
            scanf("%f", &EmployeeRecord[i].salary);
50
51
            printf("\n\n");
52
53
            printf("Is The Employee Married? (Y/y For Yes, N/n For No) : ");
            EmployeeRecord[i].marital_status = getch();
55
            printf("%c", EmployeeRecord[i].marital_status);
56
            EmployeeRecord[i].marital_status = toupper(EmployeeRecord
                                                                                        P
               [i].marital status);
57
        }
58
59
        // *** DISPLAY ***
60
        printf("\n\n\n\n");
61
        printf("******* DISPLAYING EMPLOYEE RECORDS ********\n\n");
62
63
        for (i = 0; i < NUM_EMPLOYEES; i++)</pre>
64
            printf("****** EMPLOYEE NUMBER %d ******* \n\n", (i + 1));
65
                                    : %s\n", EmployeeRecord[i].name);
            printf("Name
66
67
            printf("Age
                                    : %d years\n", EmployeeRecord[i].age);
68
            if (EmployeeRecord[i].sex == 'M')
69
                                        : Male\n");
70
                printf("Sex
            else if(EmployeeRecord[i].sex == 'F')
71
72
                printf("Sex
                                        : Female\n");
73
            else
74
                printf("Sex
                                        : Invalid Data Entered\n");
75
76
77
            printf("Salary
                                    : Rs. %f\n", EmployeeRecord[i].salary);
78
79
            if (EmployeeRecord[i].marital_status == 'Y')
                printf("Marital Status : Married\n");
80
81
            else if (EmployeeRecord[i].marital_status == 'N')
82
                printf("Marital Status : Unmarried\n");
83
            else
                printf("Marital Status : Invalid Data Entered\n");
84
85
86
            printf("\n\n");
87
        }
88
89
90
        return(0);
91 }
92
93 // *** SIMPLE RUDIMENTARY IMPLEMENTATION OF gets s() ***
94 // *** IMPLEMENTED DUE TO DIFFERENT BEHAVIOUR OF gets_s() / fgets() / fscanf() ON >
       DIFFERENT PLATFORMS ***
95 // *** BACKSPACE / CHARACTER DELETION AND ARROW KEY CURSOR MOVEMENT NOT
      IMPLEMENTED ***
```

96

98 {

97 void MyGetString(char str[], int str_size)

```
//variable declarations
99
100
         int i;
        char ch = '\0';
101
102
        //code
103
104
        i = 0;
        do
105
106
107
             ch = getch();
108
             str[i] = ch;
             printf("%c", str[i]);
109
110
             i++;
        }while ((ch != '\r') && (i < str_size));</pre>
111
112
        if (i == str_size)
113
             str[i - 1] = ' \ 0';
114
115
        else
            str[i] = '\0';
116
117 }
118
119
```