Write a short C program that declares and initializes (to any value you like) a **float**, an **int**, and a **char** in the **main()** function. Next, declare and initialize a pointer to each of the three variables. Your program should then print the variable names, the data types, the memory addresses and the values stored in of each of the six variables. Define a separate function from **main()** a function that will have as parameters the addresses of the variables and use them in getting as input the new values for the variables declared in **main()**. Then print again the variable name, the data type, the memory address and the new value stored in of each of the six variables.

## **SAMPLE OUTPUT:**

| Variable_name  | Type  | Address   | Value   |         |
|--|---|---|---|---------|
| x  | float   | 0x2700ffa   | 23.67   |         |
| Y  | int   | 0x7f0ab30   | 12345   |         |
| ch   | char  | 0x30dc230   | X   |         |
| xPtr   |   | 0x655012a   |   |         |
| yPtr   | int*  | 0x4558b34   | 0x7f0ab30                                     |         |
| cPtr   | char*   | 0x2011097   | 0x30dc230                                     |         |
|  |   |   |   |         |
| _  | 1   | . 45 0  |   |         |
| Input a new va   | Tue for X   | . 30.0  |   |         |
| Input a new va<br>Input a new va                             |   |   |   |         |
|  | lue for Y:  | : 67890   |   |         |
| Input a new va<br>Input a new va                             | lue for Y:<br>lue for ch                                | : 67890<br>h: A   |   |         |
| Input a new va   | lue for Y:<br>lue for ch                                | : 67890   | New_Value                                     |         |
| Input a new va<br>Input a new va                             | lue for Y:<br>lue for ch                                | : 67890<br>h: A   | New_Value<br>45.00                            |         |
| Input a new va Input a new va Variable_name                  | lue for Y:<br>lue for ch                                | : 67890<br>h: A<br>Address                                | <del>-</del>                                  |         |
| Input a new va Input a new va Variable_nameX                 | lue for Y: lue for ch  Type  float                      | Address 0x2700ffa 0x7f0ab30                               | <u> </u>                                      |         |
| Input a new va Input a new va Variable_nameX Y               | lue for Y: lue for ch  Type  float int                  | Address 0x2700ffa 0x7f0ab30 0x30dc230                     | 45.00<br>67890                                |         |
| Input a new va Input a new va Variable_nameX Y ch            | lue for Y: lue for ch  Type  float int char float*      | Address 0x2700ffa 0x7f0ab30 0x30dc230                     | 45.00<br>67890<br>A                           | <b></b> |
| Input a new va Input a new va Variable_name X Y ch xPtr      | lue for Y: lue for ch  Type  float int char float*      | Address 0x2700ffa 0x7f0ab30 0x30dc230 0x655012a 0x4558b34 | 45.00<br>67890<br>A<br>0x2700ffa<br>0x7f0ab30 |         |
| Input a new va Input a new va Variable_name X Y ch xPtr yPtr | lue for Y: lue for ch  Type  float int char float* int* | Address 0x2700ffa 0x7f0ab30 0x30dc230 0x655012a 0x4558b34 | 45.00<br>67890<br>A<br>0x2700ffa<br>0x7f0ab30 |         |
| Input a new va Input a new va Variable_name X Y ch xPtr yPtr | lue for Y: lue for ch  Type  float int char float* int* | Address 0x2700ffa 0x7f0ab30 0x30dc230 0x655012a 0x4558b34 | 45.00<br>67890<br>A<br>0x2700ffa<br>0x7f0ab30 | <b></b> |
| Input a new va Input a new va Variable_name X Y ch xPtr yPtr | lue for Y: lue for ch  Type  float int char float* int* | Address 0x2700ffa 0x7f0ab30 0x30dc230 0x655012a 0x4558b34 | 45.00<br>67890<br>A<br>0x2700ffa<br>0x7f0ab30 |         |

Note: Please use a different name and value from the ones given in the sample output for your variables in your program.