BIL105E - Introduction to Scientific and Engineering Computing (C)
Homework-2

Assignment Date :	12.03.2014
Due Date	: 16.04.2014 at 18:00
Duration	: 5 weeks

Write a program to perform operations for a Vending Machine, applying the following phases.
- List the item names and their prices in the vending machine.
- The customer selects an item.
- The customer deposits coins (metal money) into the machine.
- The machine discharges the selected item and gives back the remaining coins if the total of deposited coins are enough, otherwise gives a warning message to indicate that coins were not enough.
- Accepted coins are : 5 , 10 , 25 , 50 Krş and 1 TL. Program should give a warning message if user enters any coins other than these or a negative number.

Example user interface:

```
AVAILABLE ITEMS
(Item#   ItemName   ItemPrice)
1. Water       0.55  TL
2. Cola        0.80  TL
3. Fanta       1.00  TL
4. Chocolate  1.20  TL
5. Biscuit     0.95  TL
6. Gum        0.40  TL
7. Candy       0.60  TL


Enter your item selection => 2
Enter Coins => 50   25   25


Cola has been discharged : 80 Krş
You have deposited total : 100 Krş
Please take back your remaining coins : 20 Krş  (10 + 10)
```

- When user enters a selection, program should perform the operations, then it should stop.
- In main program, you should define **two arrays** for the items (names array and prices array) , and initialize the arrays with the given example data.
- When reading the coins from keyboard, you may use the built-in gets(str) function to read coins data into a string buffer, then parse them to a numeric variable. The following example is a parser program which reads unknown number of numerical data from a string buffer.

```c
// Parser Example
#include <stdio.h>
int main() {
   char s[200] = "10 20 30";
   char * p; // Scanning pointer
   int data;
   int offset; // Count of bytes to advance after each sscanf

   p = s; // Beginning address.
   while (sscanf(p, "%d%n", &data, &offset) == 1) {
       p += offset; // Increment the scanning pointer.
       printf("Data= %d  offset= %d \n", data, offset);
   } // end while
} // end main
```

- You can use this code segment in your main program at the "Enter Coins =>" location.