ASSIGNMENT-1

OOP

Abdul Moiz Chishti
SE20F-022@ssuet.edu.pk

Answer 1:

DATA TYPE	SIZE	RANGE
Byte	1 byte	Stores whole numbers from -128 to 127
Short	2 bytes	Stores whole numbers from -32,768 to 32,767
Int	4 bytes	Stores whole numbers from -2,147,483,648 to 2,147,483,647
Long	8 bytes	Stores whole numbers from -9,223,372,036,854,775,808 to 9,223,372,036,854,775,807
Float	4 bytes	Stores fractional numbers. Sufficient for storing 6 to 7 decimal digits
Double	8 bytes	Sufficient for storing 15 decimal digits
Boolean	1 bit	True or false
Char	2 bytes	Stores a single character/letter

Answer 2:

Reading numbers:

For reading numbers as a variable you must mention (int) before that variable which confirms that the given value will be integer

From input:

If u want to read input or different types in an input so just mention the data type before the input taking variables.

Example:

```
Package typer;
Public class typer {
    public static void main(string[] args) {

          byte i = 79;
          // no casting needed for below conversion
          short j = i;
          int k = j;
          long l = k;
          float m = l;
          double n = m;

          system.out.println("byte value : "+i);
          system.out.println("short value : "+j);
          system.out.println("int value : "+k);
          system.out.println("long value : "+l);
          system.out.println("float value : "+m);
          system.out.println("double value : "+n);
     }
    }
```

Answer 3:

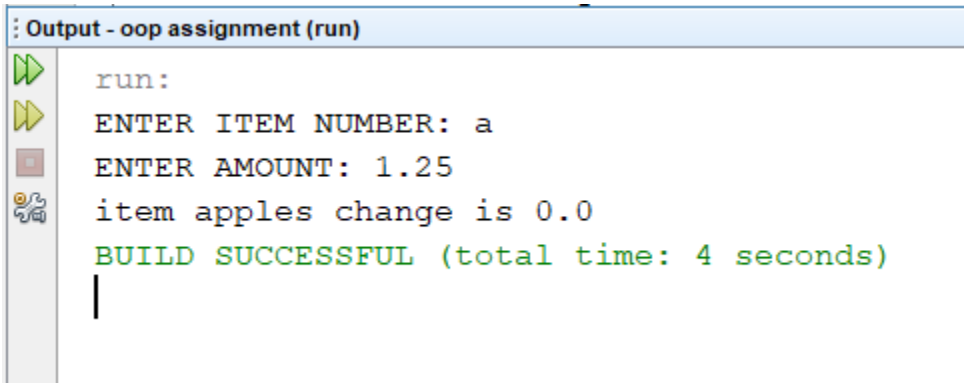
CODE:

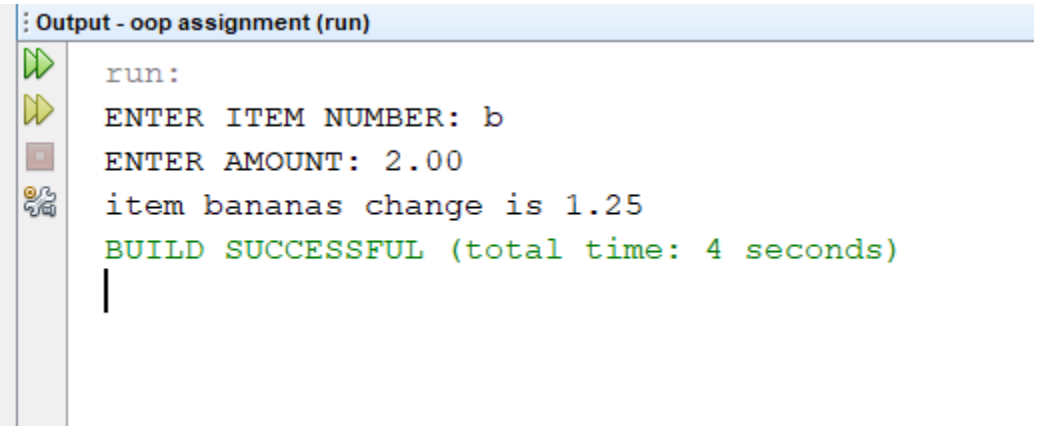
```
    public static void main(String[] args) {

        String a,b,c,d,e,f;

        double q,w,s,r,t,y;

        a ="apples";

        b ="bananas";

        c ="oranges";
```

```
        d ="strawberries";
        e ="blueberry";
        f ="lemon";

        q=1.25;
        w=.75;
        s=.90;
        r=.75;
        t=1.50;
        y=.75;

        Scanner sc=new Scanner(System.in);
        System.out.print("ENTER ITEM NUMBER: ");
        String A=sc.nextLine();
        System.out.print("ENTER AMOUNT: ");
        double i=sc.nextDouble();
        if (A.equals("a") && i >= 1.25)
            System.out.println("item "+a+" "+"change is "+(i-1.25));
        else if(A.equals("a") && i < 1.25)
            System.out.println("PLZ ENTER VALID AMOUNT OR COMPLETE
AMOUNT !")
        if (A.equals("b") && i >= .75)
            System.out.println("item "+b+" "+"change is "+(i-.75));
        else if(A.equals("b") && i < .75)
            System.out.println(" ENTER COMPLETE AMOUNT! ");
        if (A.equals("c") && i >= .90)
            System.out.println("item "+c+" "+"change is "+(i-.90));
        else if(A.equals("c") && i < .90)
```

```
            System.out.println("plz enter valid or complete
amount!".toUpperCase());
        if (A.equals("d") && i >= .75)
            System.out.println("item "+d+" "+"change is "+(i-.75));
        else if (A.equals("d") && i < .75)
            System.out.println("plz enter valid or complete
amount!".toUpperCase());
        if (A.equals("e") && i >= 1.50)
            System.out.println("item "+e+" "+"change is "+(i-1.50));
        else if (A.equals("e") && i < 1.50)
            System.out.println("plz enter valid or complete
amount!".toUpperCase());
        if (A.equals("f") && i >= .75)
            System.out.println("item "+f+" "+"change is "+(i-.75));
        else if (A.equals("f") && i < .75)
    }
}
```

Output:




Output - oop assignment (run)
run:
ENTER ITEM NUMBER: b
ENTER AMOUNT: 2.00
item bananas change is 1.25
BUILD SUCCESSFUL (total time: 4 seconds)