Pg. 129 – 130, Java Programming *A comprehensive Introduction*

Pg. 131 – 144, Java Programming *A comprehensive Introduction*

Class and Object expanded - Continued

**Section 1: Define / Answer**

(Parameter , Argument):

They are more conventional way in which values are passed between classes.

|  |  |
| --- | --- |
| Parameter | Arguments |
| Are the number of arguments present  - are the variables in a method or functions | It is an individual type  - It is actual data type that are passed to a parameter when call a function. |

Diagram a short code example of a method with a single parameter, that passes an double argument in java? Explain what each piece of the code represents.

Constructor (what are building):

Start with same name as class, helps to initialize the variables inside our class. It is more than that as using constructor we can limit ourselves who we wan program to run.

Task 1- Start to construct complete programs. Think about the overall functioning of the program. Use Assignment #13 Task1 as the bases for this exercise.

Create a **do**-**while** loop / with **switch case** statements that operate the program.

You will have multi-level menu operation using **do-while** implementation.

Present the user with a menu and options. Based upon the options selected by the user the program should operate correctly. **You will need nested menu’s of some sort.**

Create a computer program that will calculate the range for 3 different vehicles.

The program should create a “programmer created” class, where 3 **int** class/instance variablesare created passengers, fuel capacity, mpg.

Set-up the program so the user can manually input the values for passengers, fuel capacity, mpg for the 3 created vehicles.

Use programming conventions **void set()** methods to set values, **return get()** methods to return values.

Think about where in the program in object creation will take place.

**range =** **fuel capacity \* miles per gallon**.

Each Vehicle type should have unique values for number of passengers, fuel capacity, and miles per gallon.

Attach Snipping photos as the program operates, including menu prompts, outputs etc.

Please create White Boarding or Pseudo Code for you program design.

**Sample Output: // Create similar output for 3 Vehicle Types**

**On next page-**

**Change input values now that we are creating the same program multiple times.**

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Main Menu: \*

\* Enter # to run program or Quit \*

\* 1) Minivan \*

\* 2) Hybrid \*

\* 3) Sports Car \*

\* 4) Quit \*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

1

You Selected Option 1:

Minivan

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Minivan Main Menu: \*

\* Enter # to run program or Quit \*

\* 1) Enter Fuel Capacity \*

\* 2) Enter Miles Per Gallon \*

\* 3) Calculate Range \*

\* 4) Return To Main Menu \*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

You Selected Option 1:

Enter fuel capacity in Integers Please

15

You entered: 15

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Minivan Menu: \*

\* Enter # to run program or Quit \*

\* 1) Minivan \*

\* 2) Enter Miles Per Gallon \*

\* 3) Calculate Range \*

\* 4) Return To Main Menu \*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

You Selected Option 2:

Enter Miles Per Gallon in Integers Please

30

You entered: 30

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Minivan Menu: \*

\* Enter # to run program or Quit \*

\* 1) Minivan \*

\* 2) Enter Miles Per Gallon \*

\* 3) Calculate Range \*

\* 4) Return To Main Menu \*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

You Selected Option 3:

Range = 450

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Minivan Menu: \*

\* Enter # to run program or Quit \*

\* 1) Minivan \*

\* 2) Enter Miles Per Gallon \*

\* 3) Calculate Range \*

\* 4) Return To Main Menu \*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*





























