MP1 readme

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To Run
- test_mp1.bat located in run folder

MP1 can:
- read all contracts and transaction objects into an array or Collection of Records
- displays contract data using toString() method in a loop
- displays all contract and transaction data in a tabular format using accessor methods.
- display the comparisons of the transaction_charge of any two Records
- display the comparisons of the transaction_quantity of any two Records
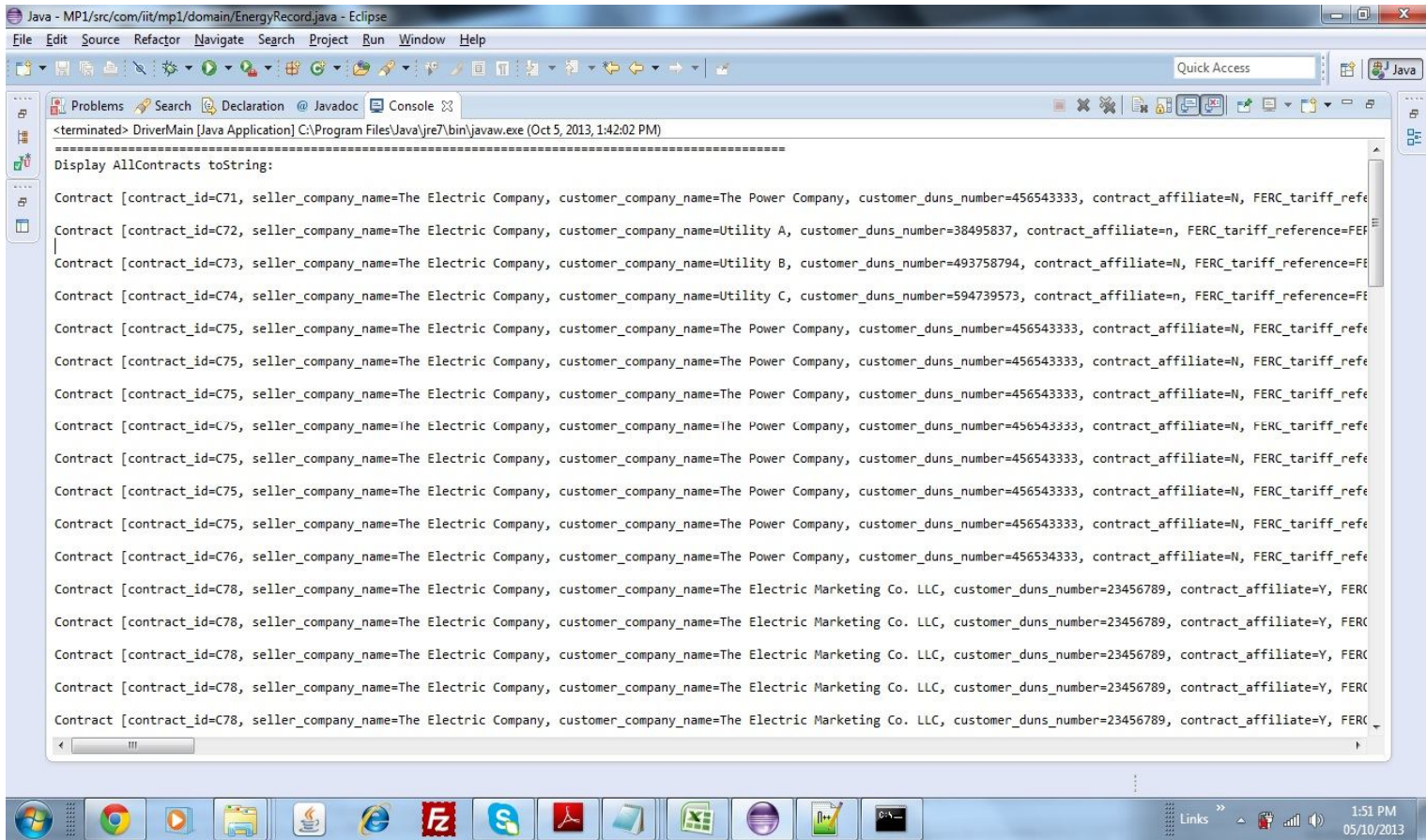- display all Records sorted by Price.

MP1 has been tested and runs on
- ✓ Hardware
    - Intel(R) Core(TM) i5 CPU 2.53 GHz
- ✓ Software
    - Windows 7 32-bit
    - IDE: Eclipse
    - IDE Version: Kepler Release
    - Java JDK 7 version

Development Insights
The data is provided in contract.txt and transaction.txt files. I converted the text files into csv formats which are further parsed and used for displaying the data. DataProvider.java is the file that parses the csv files and returns the respective lists. Transaction.java and Contract.java are the POJO files with fields which are unique to them. Common fields are provided are in EnergyRecord superclass. Transaction.java and Contract.java extends EnergyRecord.java. If no data is present for any field in the contract.txt or transaction.txt, then the default value is set to 0. For this purpose, there is a method 'check' in the transaction.java and contract.java file which sets the default value to 0 when data is not present. Transaction.java and Contract.java has toString methods to display data. Record interface has four method declarations which are implemented in transaction.java. These methods display the comparisions of transaction_charge and transaction_quantity of any two records. SortedPriceList.java sorts the transaction list on the basis of price column in ascending order. DataPrinter.java displays all contracts and transaction records in tabular format. This file uses print formatter for displaying data in tabular format. DriverMain.java is the main file where the execution starts.

Screen captures demonstrating all application capabilities

- Display of all Contract data using toString() method in a loop:

- Display of all contract and transaction data in a tabular format using accessor methods

Problems Search Declaration @ Javadoc Console

<terminated> DriverMain [Java Application] C:\Program Files\Java\jre7\bin\javaw.exe (Oct 5, 2013, 1:42:02 PM)

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Displaying contracts and transaction data in tabular format:
inside displayContractsInTabularFormat===>
   C71        The Electric Company              The Power Company                456543333              N              FERC Electric Tari
   C72        The Electric Company                    Utility A                   38495837              n              FERC Electric Tari
   C73        The Electric Company                    Utility B                  493758794              N              FERC Electric Tari
   C74        The Electric Company                    Utility C                  594739573              n              FERC Electric Tari
   C75        The Electric Company              The Power Company                456543333              N          FERC Electric Tariff 1
   C75        The Electric Company              The Power Company                456543333              N          FERC Electric Tariff 1
   C75        The Electric Company              The Power Company                456543333              N          FERC Electric Tariff 1
   C75        The Electric Company              The Power Company                456543333              N          FERC Electric Tariff 1
   C75        The Electric Company              The Power Company                456543333              N          FERC Electric Tariff 1
   C75        The Electric Company              The Power Company                456543333              N          FERC Electric Tariff 1
   C75        The Electric Company              The Power Company                456543333              N          FERC Electric Tariff 1
   C76        The Electric Company              The Power Company                456534333              N              FERC Electric Tari
   C78        The Electric Company    The Electric Marketing Co. LLC              23456789              Y              FERC Electric Tar
   C78        The Electric Company    The Electric Marketing Co. LLC              23456789              Y              FERC Electric Tar
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   C78        The Electric Company    The Electric Marketing Co. LLC              23456789              Y              FERC Electric Tar
   C78        The Electric Company    The Electric Marketing Co. LLC              23456789              Y              FERC Electric Tar
   C78        The Electric Company    The Electric Marketing Co. LLC              23456789              Y              FERC Electric Tar
```

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```
   C78        The Electric Company    The Electric Marketing Co. LLC              23456789              Y              FERC Electric Tar
   C78        The Electric Company    The Electric Marketing Co. LLC              23456789              Y              FERC Electric Tar

inside displayTransactionsInTabularFormat===>
   T1         The Electric Company    The Electric Marketing Co. LLC              23456789 FERC Electric Tariff Original Volume No. 2         Service
   T2         The Electric Company              The Power Company                45653333 FERC Electric Tariff Original Volume No. 10
   T3         The Electric Company              The Power Company                45653333 FERC Electric Tariff Original Volume No. 10
   T4         The Electric Company              The Power Company                45653333 FERC Electric Tariff Original Volume No. 10
   T5         The Electric Company              The Power Company                45653333 FERC Electric Tariff Original Volume No. 10
   T6         The Electric Company              The Power Company                45653333 FERC Electric Tariff Original Volume No. 10
   T7         The Electric Company              The Power Company                45653333 FERC Electric Tariff Original Volume No. 10
   T8         The Electric Company              The Power Company                45653333 FERC Electric Tariff Original Volume No. 10
   T9         The Electric Company              The Power Company                45653333 FERC Electric Tariff Original Volume No. 10
   T10        The Electric Company              The Power Company                45653333 FERC Electric Tariff Original Volume No. 10
   T10        The Electric Company              The Power Company                45653333 FERC Electric Tariff Original Volume No. 10
   T10        The Electric Company              The Power Company                45653333 FERC Electric Tariff Original Volume No. 10
   T10        The Electric Company              The Power Company                45653333 FERC Electric Tariff Original Volume No. 10
   T10        The Electric Company              The Power Company                45653333 FERC Electric Tariff Original Volume No. 10
   T10        The Electric Company              The Power Company                45653333 FERC Electric Tariff Original Volume No. 10
   T11        The Electric Company                    Utility A                   38495837 FERC Electric Tariff Original Volume No. 10
   T11        The Electric Company                    Utility A                   38495837 FERC Electric Tariff Original Volume No. 10
   T12        The Electric Company                    Utility A                   38495837 FERC Electric Tariff Original Volume No. 10
   T12        The Electric Company                    Utility A                   38495837 FERC Electric Tariff Original Volume No. 10
   T13        The Electric Company                    Utility A                   38495837 FERC Electric Tariff Original Volume No. 10
   T13        The Electric Company                    Utility A                   38495837 FERC Electric Tariff Original Volume No. 10
   T14        The Electric Company                    Utility A                   38495837 FERC Electric Tariff Original Volume No. 10
   T14        The Electric Company                    Utility A                   38495837 FERC Electric Tariff Original Volume No. 10
   T15        The Electric Company                    Utility B                  493758794 FERC Electric Tariff Original Volume No. 10

=========================================================================================
Record 4 charge value:60000
Record 1 charge value:537600
Transaction charge of record4 is smaller than of record1: true
Difference between the charge values is 477600.0
```

- Display of the comparisons of the transaction_charge of any two Records
- Display of the comparisons of the transaction_quantity of any two Records

- Display of all Records sorted by Price.

Problems   Search   Declaration   @ Javadoc   Console

<terminated> DriverMain [Java Application] C:\Program Files\Java\jre7\bin\javaw.exe (Oct 5, 2013, 1:42:02 PM)

Type	Quantity	Price	Unit	Value
ENERGY	1875	13.75	$/MWH	6675
CAPACITY	150	20	$/MW-DAY	0
ENERGY	150	22	$/MWH	4264
ENERGY	150	28	$/MWH	0
Booked out power	60	30	$/MWH	0
ENERGY	16800	32	$/MWH	0
ENERGY	16800	32	$/MWH	0
ENERGY	16800	32	$/MWH	0
BOOKED OUT POWER	350	32	$/MWH	0
ENERGY	22574	39	$/MWH	0
ENERGY	1875	44	$/MWH	0
ENERGY	150	44	$/MWH	0
ENERGY	150	44	$/MWH	0
ENERGY	1875	48	$/MWH	0
ENERGY	1200	50	$/MWH	0
Energy	100	50	$/MWH	0
Energy	100	55	$/MWH	0
ENERGY	150	58	$/MWH	0
Energy	-5	59	$/MWH	0
Energy	-10	59	$/MWH	0
Energy	-10	60	$/MWH	0
Energy	-10	60	$/MWH	0
Energy	100	62	$/MWH	0
Energy	100	62	$/MWH	0