**Market Store Console Application**

**Assignment**

Amarket store offers to their clients three different types of discount cards: bronze, silver and gold. Each card stores information about its owner, the turnover for the previous month and the initial discount rate. With each card you can calculate the discount of the current purchase. In general this is done using the formula: value\_of\_purchase \* discount\_rate.

The bronze card comes with no discount rate if the turnover for the previous month is below $100. If it is between $100 and $300, the discount rate is 1%. And if it is above $300, the rate is 2.5%.

The silver card comes with an initial discount rate of 2%. In case, the turnover is over $300, the rate is 3.5%.

The gold card comes with an initial discount rate of 2%. The discount rate grows 1% for each $100 from the turnover, capping at 10%.

***Your task is:***

* ***to write an object-oriented model of this market store system;***
* ***to create a class called PayDesk containing static method(s) that output the discount rate, the discount and the total purchase value;***
* ***in your application entry point:***
  + ***create instances with sample data as shown in Example outputs section;***
  + ***invoke method(s) of the PayDesk class to print the required information.***

**Example outputs**

1. Bronze:  
   a. Mock data: turnover $0, purchase value $150;  
   b. Output:
   * Purchase value: $150.00
   * Discount rate: 0.0%
   * Discount: $0.00
   * Total: $150.00
2. Silver:  
   a. Mock data: turnover $600, purchase value $850;  
   b. Output:
   * Purchase value: $850.00
   * Discount rate: 3.5%
   * Discount: $29.75
   * Total: $820.25
3. Gold:

a. Mock data: turnover $1500, purchase value $1300;  
b. Output:

* + Purchase value: $1300.00
  + Discount rate: 10.0%
  + Discount: $130.00
  + Total: $1170.00

**How to start the program and how it works:**

1. Import the source code into IntelliJ IDEA or other IDE!
2. Run the application!
3. Enter “start” tocontinue or “exit” to stop the program!
4. Enter the type of the card which the client owns! (Bronze, Silver or Gold)
5. Enter the turnover for the previous month! (а positive number)
6. Enter the purchase value! (а positive number)
7. If the data is correct, the program will create a card of the given type and calculate the discount rate, the discount itself and the total sum.
8. The “PayDesk” will print the required information.