

Discount cards application

This application is intended to be used as console – type application. The source code must be started in Eclipse or in similar applications. The “Main.java” file contains the “Main” class, which is an entry point of the application. You must start application from this file.

In the Main class, there is already an example displaying how the application would behave. We can see that we have 3 types of cards : Bronze, Silver and Gold. If you want to create a new card, you can immediately insert some elements in the constructor parameters, but this isn't mandatory. You can insert the name of the customer, his/her JMBG number and, optionally, last month turnover of this customer. You can, at any moment, change cards data if you need to change it or if you didn't enter data at the card creation. The functions used for getting or setting variables are:

- getJmbg() and setJmbg(String) for the Customer JMBG number.
- getCustomerName() and setCustomerName(String) for the Customer name.
- getTurnover() and setTurnover(Integer) for the Customer last month turnover.

All types of cards share same methods for getting and setting variables, inherited from the abstract class “cardAbstract”. Exception is the function “setDiscRate()”, which is defined for every derived class separately. The Gold card has a discount rate at 2% under 100\$ turnover, increasing 1% for every additional 100\$ turnover, maxing out at 10%. The Silver card has a discount rate at 2% under 300\$ turnover. Over that sum, the discount rate is 3.5%. The bronze has no discount rate under 100\$ turnover, increases to 1% if the turnover is between 100\$ and 300\$ and goes to 2.5% if 300\$ turnover is passed. This function can't be used in other classes, it is only called when turnover value is either defined or changed.

To get a discount rate, total discount or total price in dollars, use class “PayDesk”. It has static functions (doesn't need to be created as an object to be used)
“discountRate(card)”, which returns percentage of the discount rate.
“discount(card, valueOfPurchase)”, which returns total discount in dollars.
“totalPurchaseValue(card, valueOfPurchase)”, which returns the final price of the purchase.
In the parameters of those functions, “card” is either Gold/Silver/Bronze type of card, and “valueOfPurchase” is the initial value of the purchase without the discount.