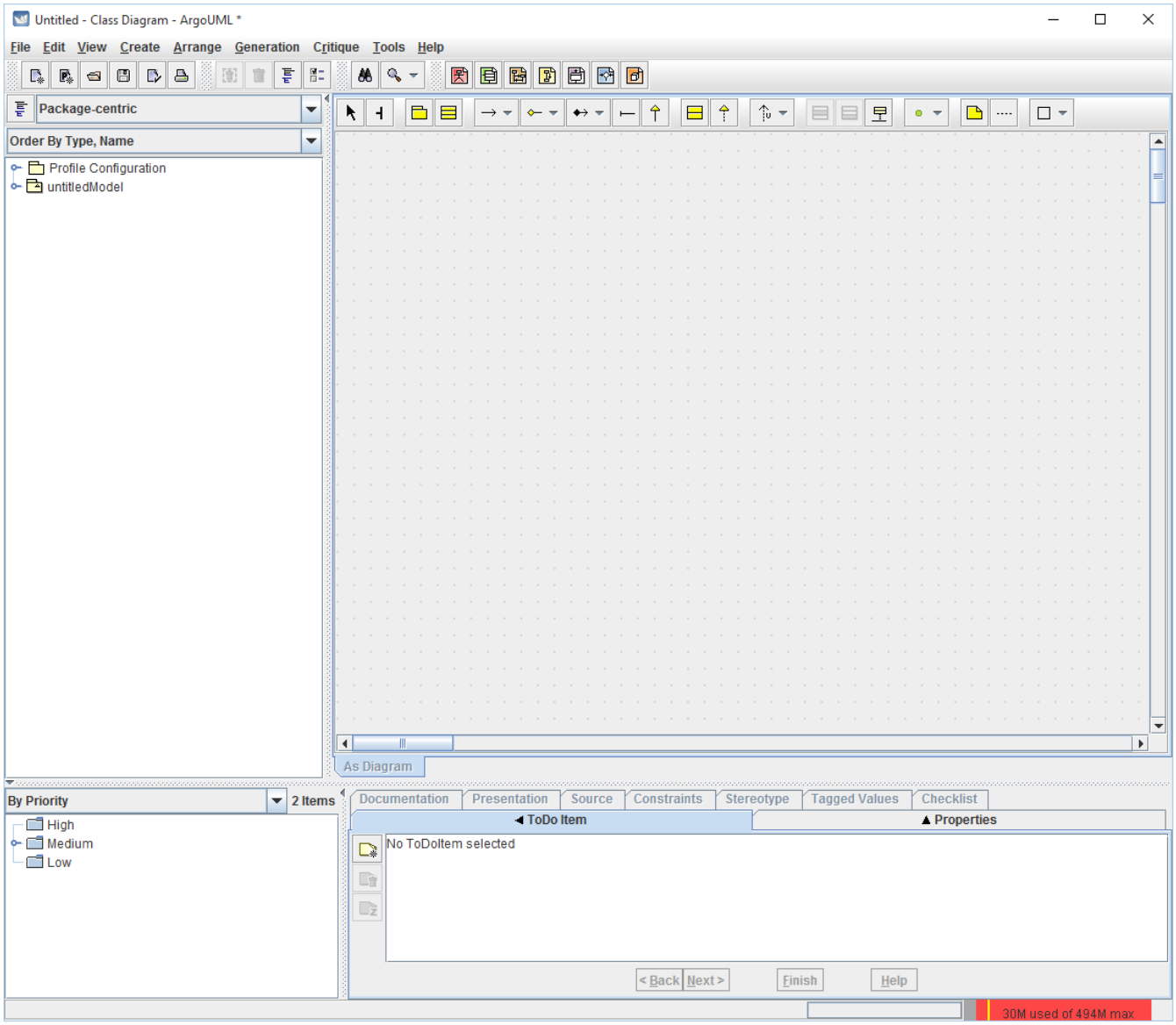
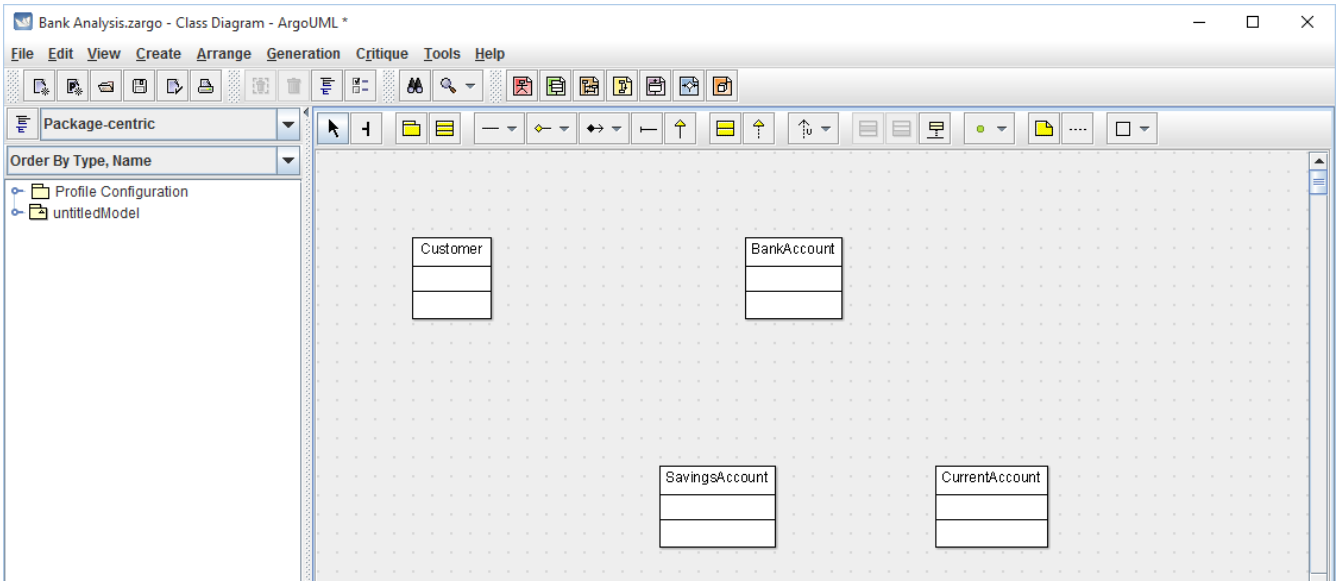
# Introduction to ArgoUML Class & Sequence Diagrams

Run ArgoUML from the lab PC or your laptop.

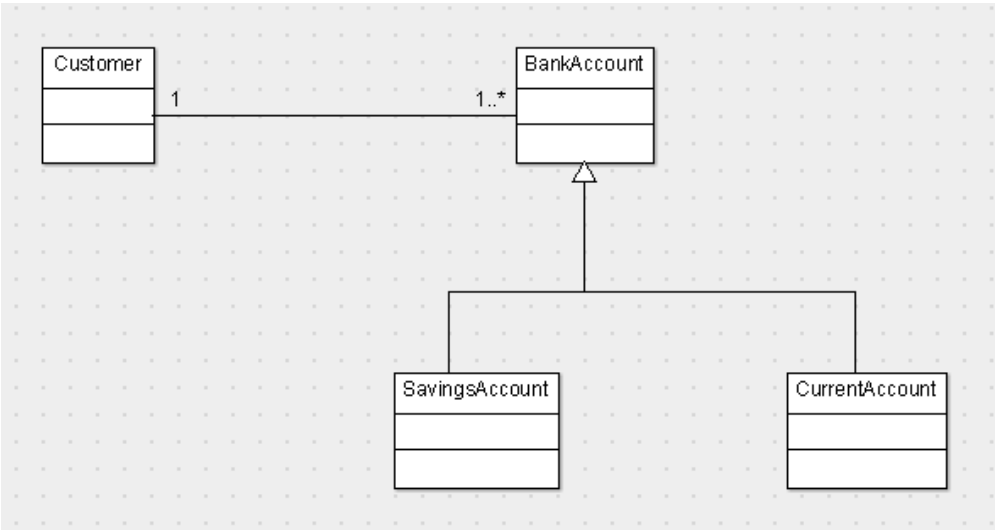


## Adding Classes

Click on the toolbar icon  to create 4 classes as show below and saving your work under the name *Bank Analysis*.

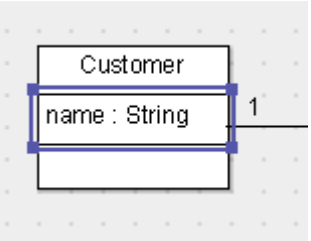



Next use the ***New Association*** and ***New Generalization*** icons to create the links between the class as show next.

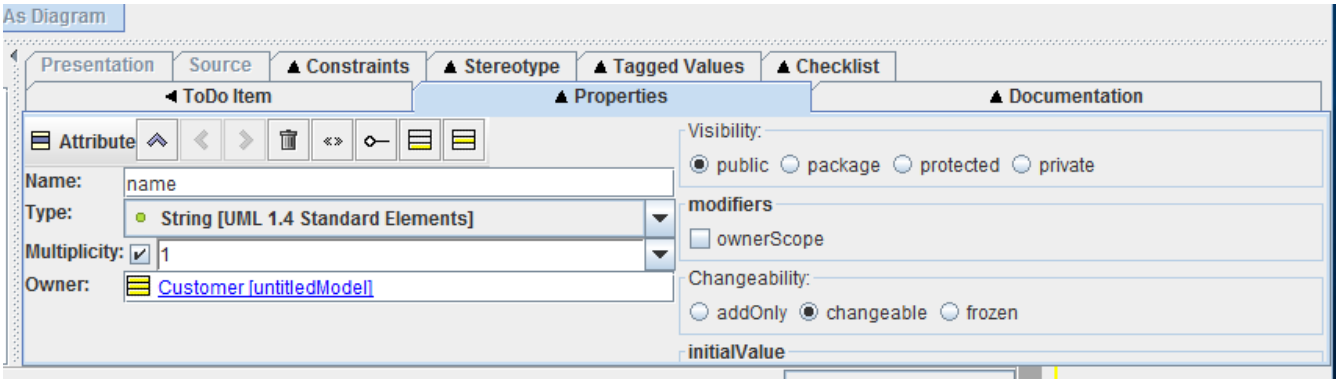


## Adding Attributes and a Datatype

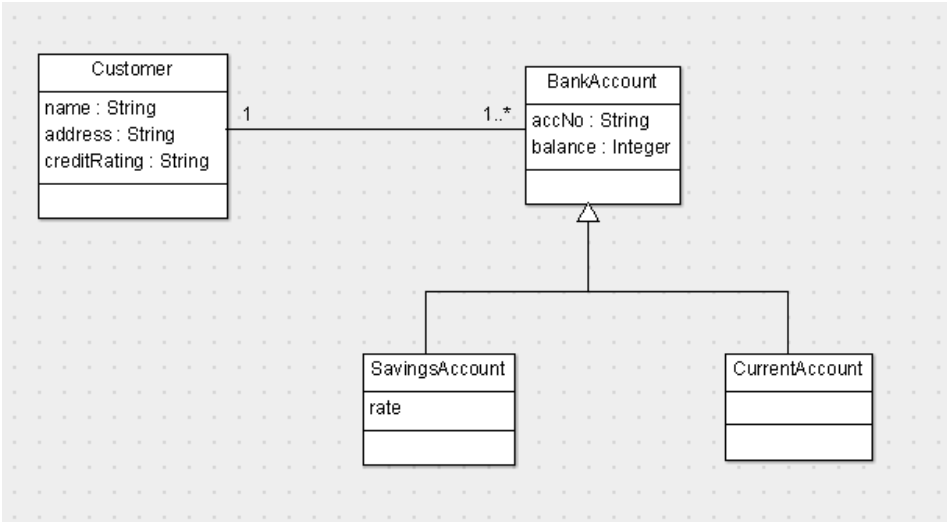
Right-click on *Customer* class, and from the popup menu select **Add/New Attribute**.



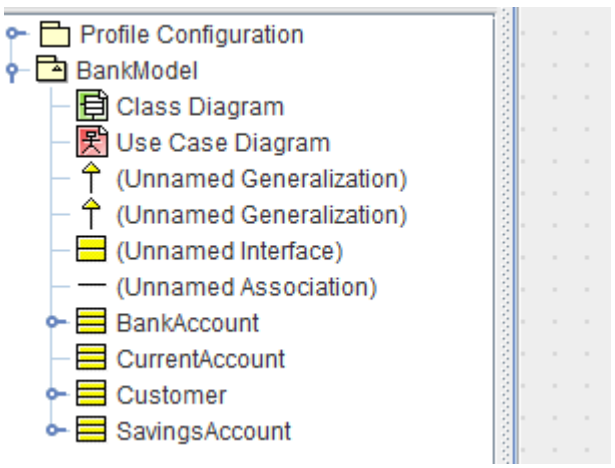

If you need to change the name or Type of the new attribute , you can do so in the Properties tab on the bottom pane of ArgoUML.

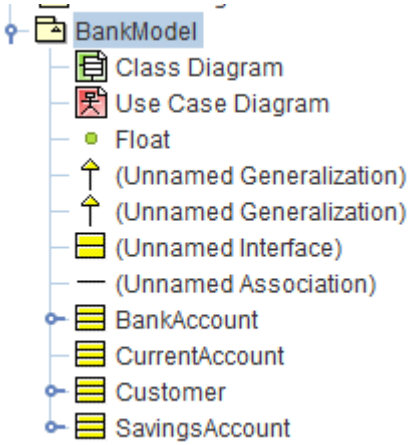



Add the attributes shown below.



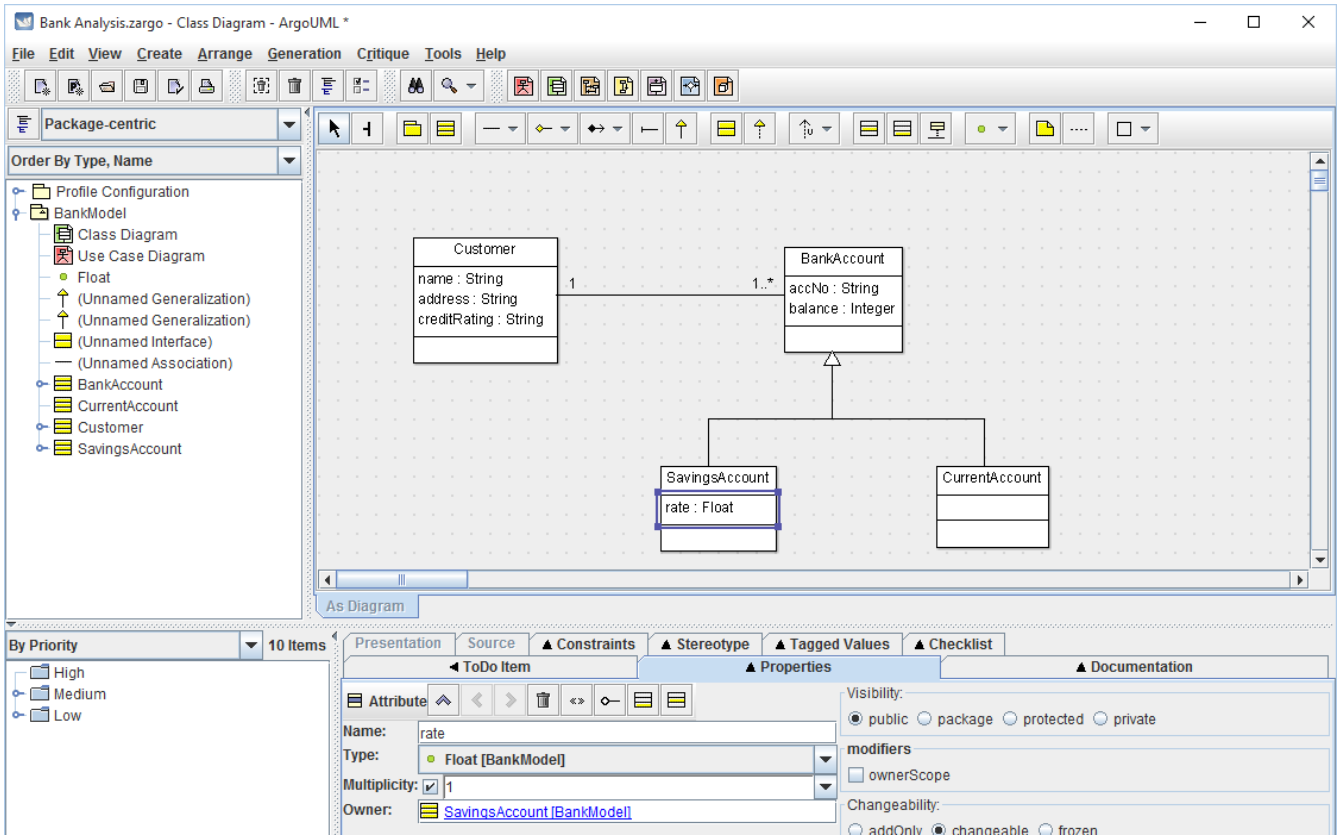
We want rate to be of Type **Float**, but it doesn't seem to be available in ArgoUML. To create it, right-click on the model folder (named BankModel here but may be untitledModel) in the explorer or browser pane (on top left) and select **Create Model Element / New Datatype** and name it Float. Should go from



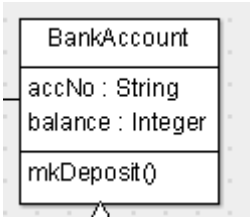

to

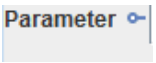
Then change the Type for **rate** to Float to get:



## Adding Operations or Methods and Parameters

Right-click on *BankAccount* class and select **Add/New Operation**, name it *mkDeposit* to get




Then with the mouse, highlight the *mkDeposit()* operation in the class diagram. Its Properties tab should appear on the bottom. In this tab, expand the Parameter icon 

to get 

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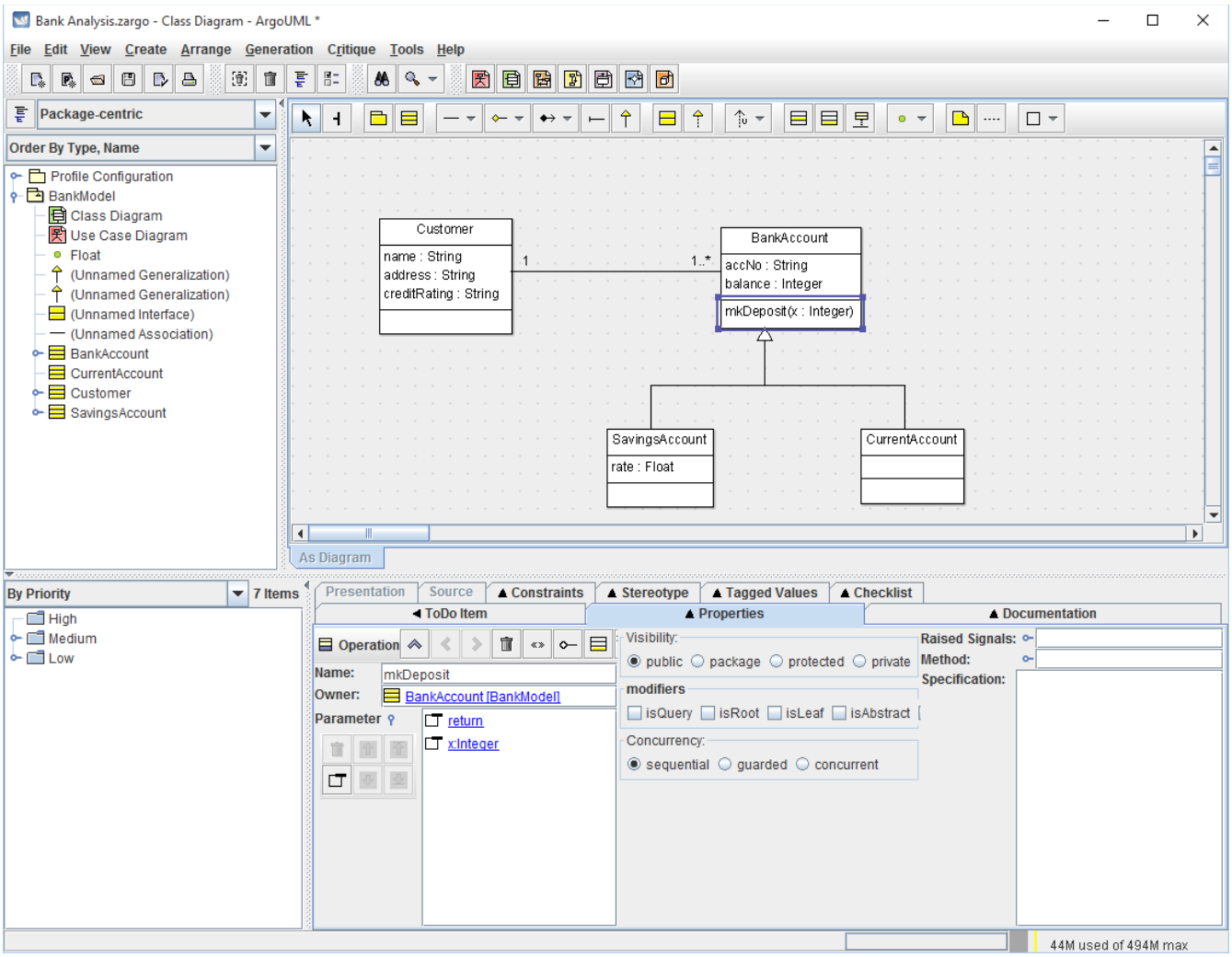
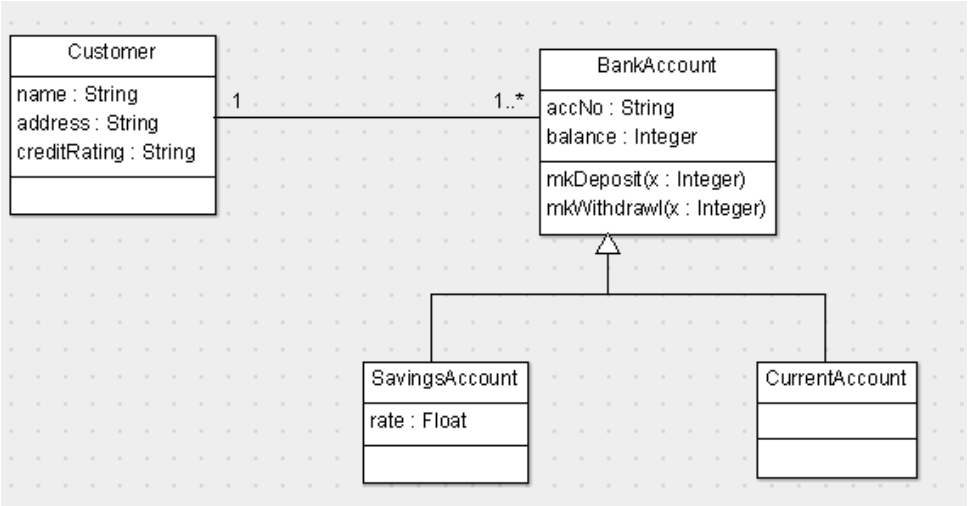
Click on  to add a new parameter called **x** of type Integer. Should now have something like:

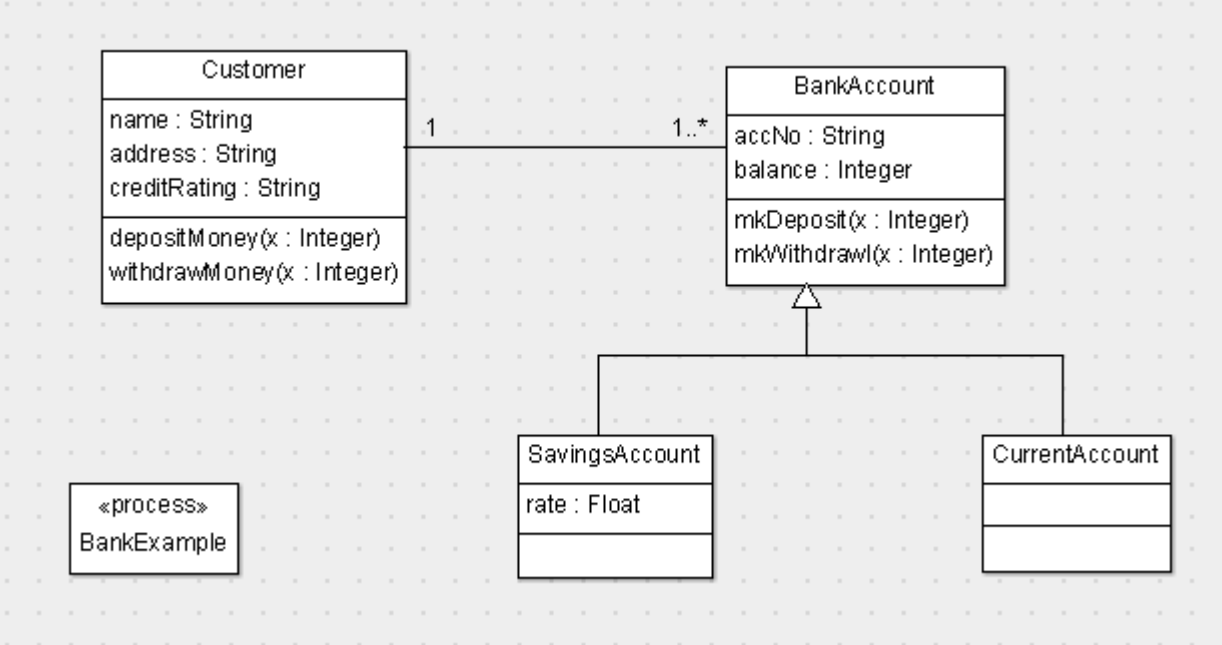


Finally add one more operation, *mkWithdrawl()*, to get the class diagram:

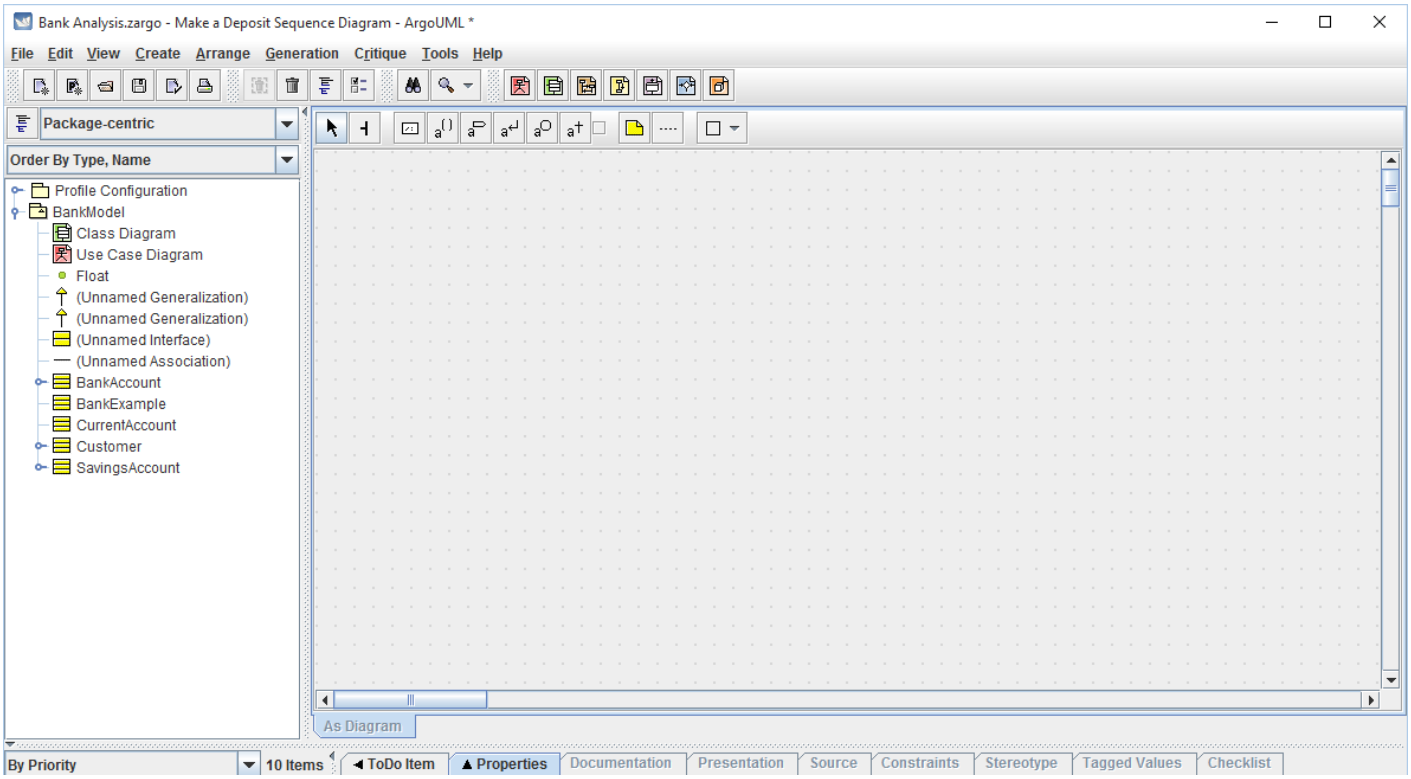


## Drawing a Simple Sequence Diagram

Add a new class called BankExample to the class diagram. Right-click on it and select **Apply Stereotypes / Process**. <<process>> means that this class has the main() method and represents the running program or process. Right-click again and select **Show / Hide all compartments**. Should get:



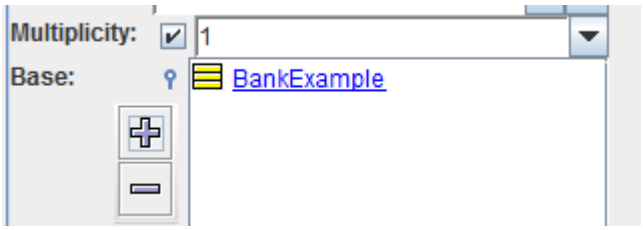

Select menu **Create / New Sequence Diagram** to get a drawing window for a sequence diagram. Name it *Making Deposit Sequence Diagram*. We will next build such as diagram as explained in class.



From the toolbar select the **New Classifier Role** icon  and click on drawing area. Then click on the new object or role you created to select it so that its properties table becomes visible.

Using this properties tab, click on the icon 

, then click on  , select BankExample, click on  to get



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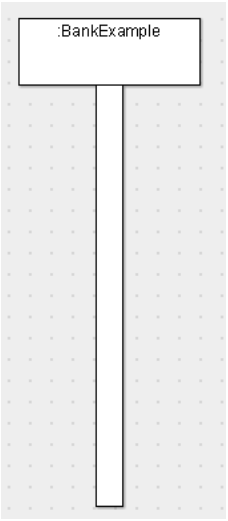
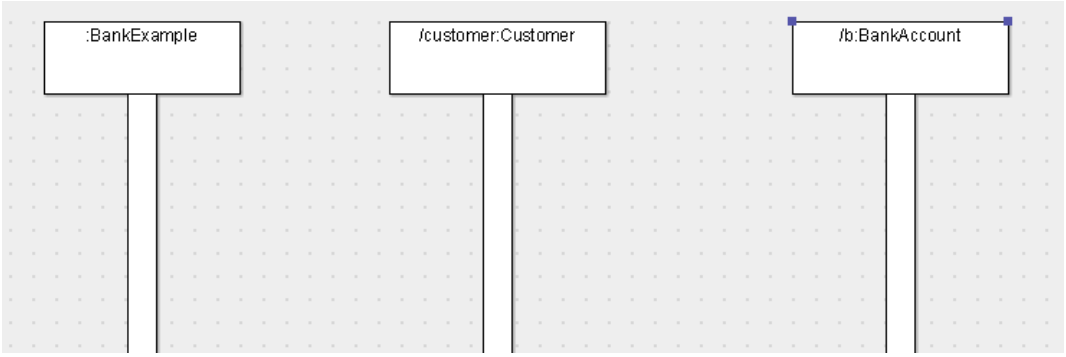
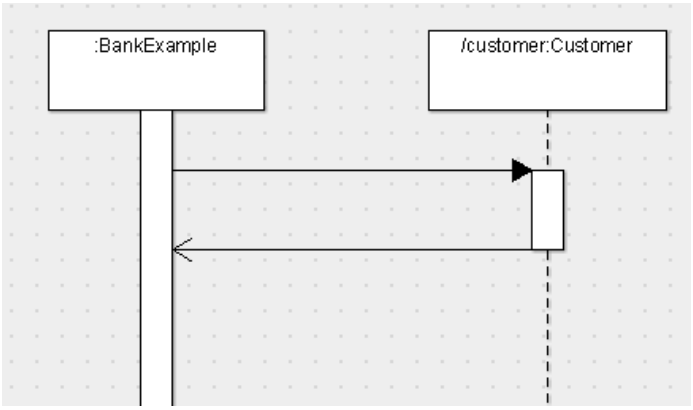
Resize the object lifeline to get something like:



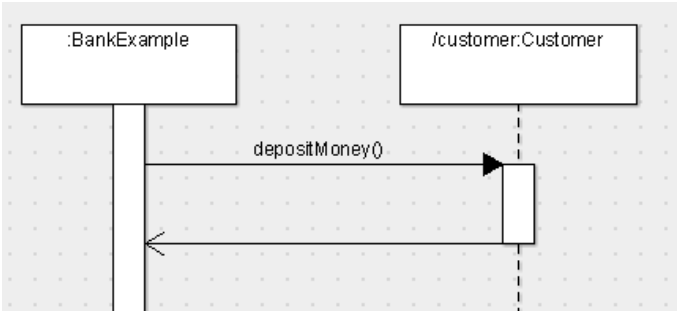

Add two more objects or classifier roles, name them *customer* and *b*, and set their base classes to Customer and BankAccount as shown next.



Next we show the object collaboration or messaging one another. Use the icon  for **New Call Action**, to link the first two object lifelines to get:




Right-click on the top linking arrow, select **operation / depositMoney(x:Integer)** to get:




Do something similar to get the completed sequence diagram: