#### NATIONAL UNIVERSITY OF COMPUTER AND EMERGING SCIENCES

### Software Design and Analysis (CS 3004)

Instructor: Engr. Abdul Rahman

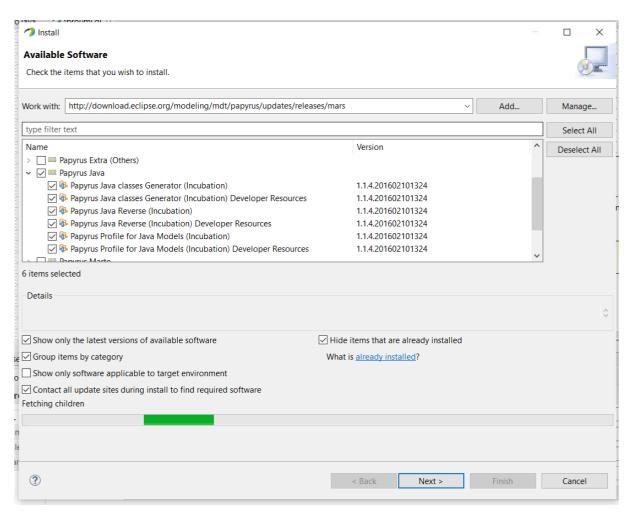
#### abdulrahman@nu.edu.pk

### Generate java code using papyrus

You need to install Papyrus Java Classes Generator.

- 1. Help --> install new software
- 2. work with
  - : http://download.eclipse.org/modeling/mdt/papyrus/updates/releases/mars
- 3. Check group items by category
- 4. Check show only the latest version of available software
- 5. Check Papyrus Java
- 6. Next --> accept terms and conditions
- 7. finish

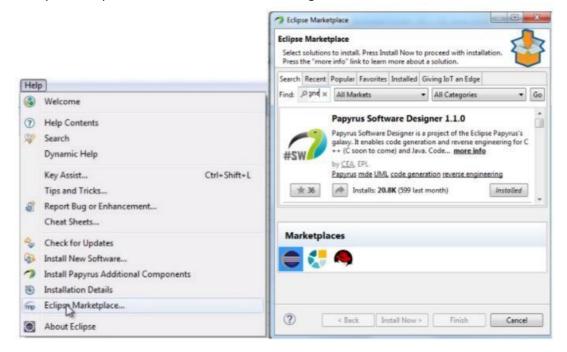
Now, in your model.di : right click on your class --> Java --> Generate java code. And you're done!



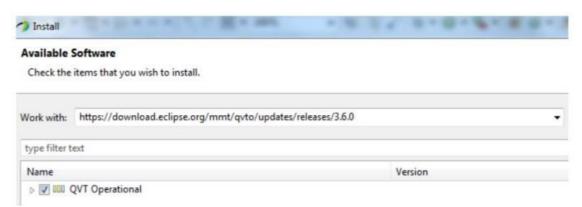
## how to install Marketplace client on Eclipse

Simply select All sites and search for "marketplace" on the *Install new software...* wizard.

Go to help and Eclipse Client and install software designer



Go to https://download.eclipse.org/mmt/qvto/updates/releases/3.6.0 this for QVT

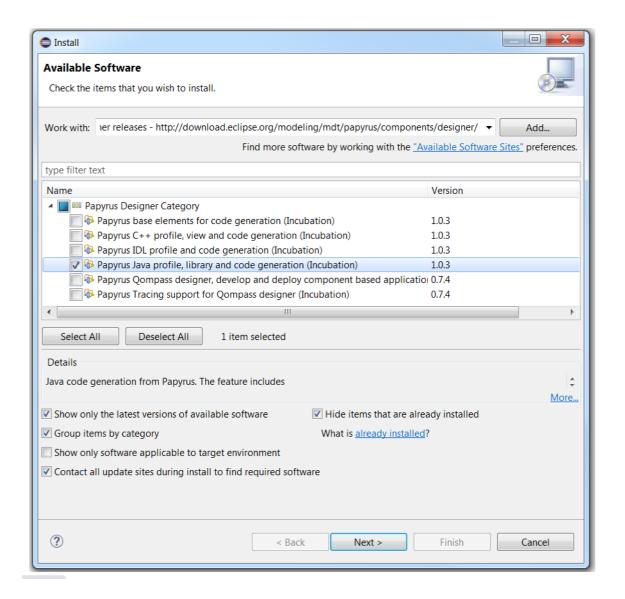


Restart the software after each step now your system is ready for Code Generation

The Java features of Papyrus are available as part of the Papyrus Software Designer extra feature.

You can install it by using the Papyrus Software Designer update-site:

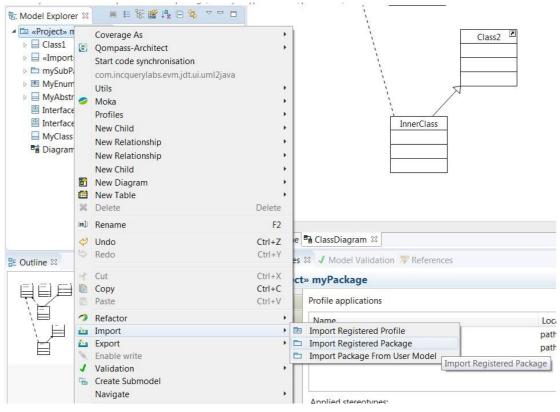
• http://download.eclipse.org/modeling/mdt/papyrus/components/designer/

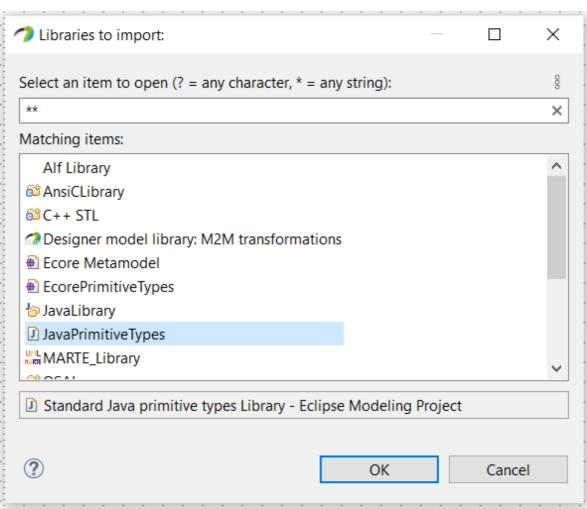


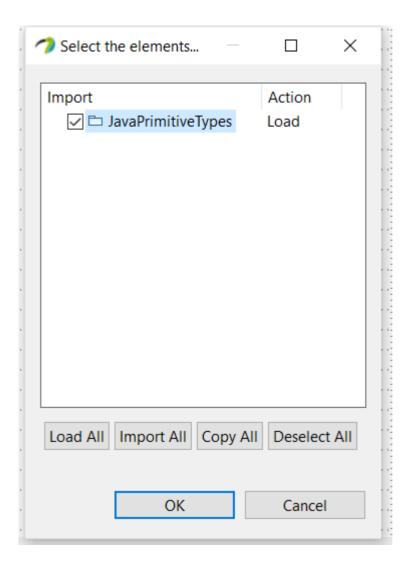
### Java library

The Java library provides Java primitives and their wrapper classes. To import, this library:

- Right click on your model (in the Model Explorer view)
- Import > Import Registered Package
- Choose the JavaPrimitiveTypes
- Then you can use the Java primitives in this package, when you type attributes, parameters, etc...



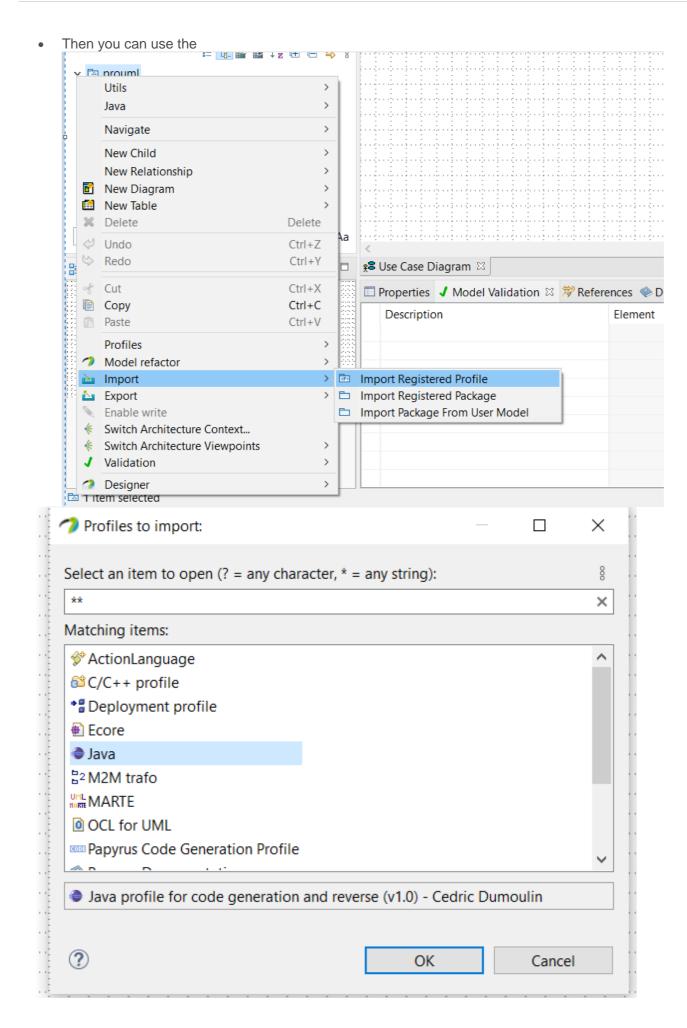




### **Java Profile**

The Java library provides Java primitives and their wrapper classes. To import, this library:

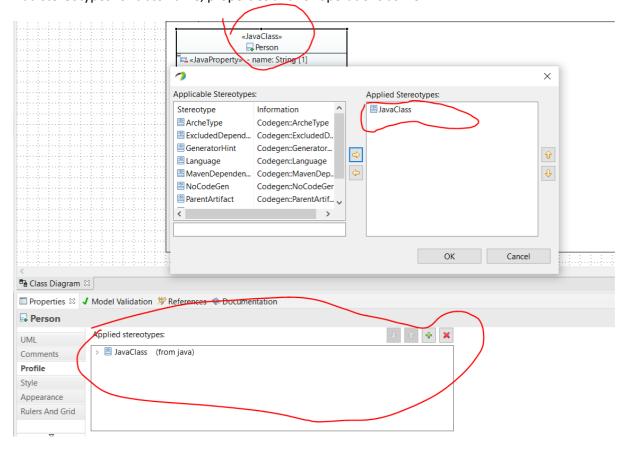
- Right click on your model (in the Model Explorer view)
- Import > Import Registered Profile
- Choose the Java package
- This step is for adding stereotype





# BeforeCode generation add stereotypes

Add stereotypes for class name, properties and for operations as well

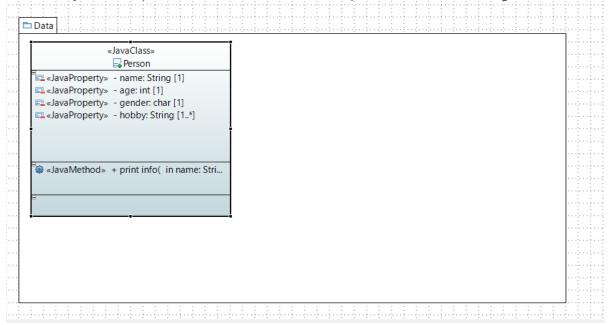


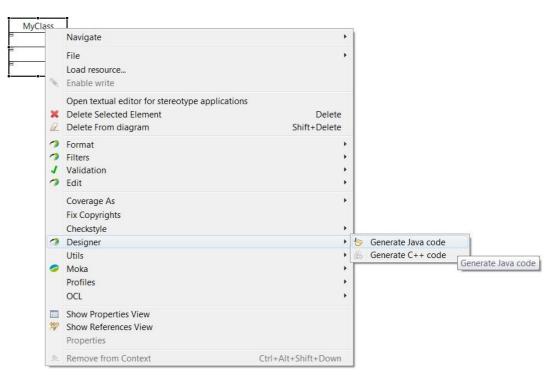
# **Code generation from UML elements**

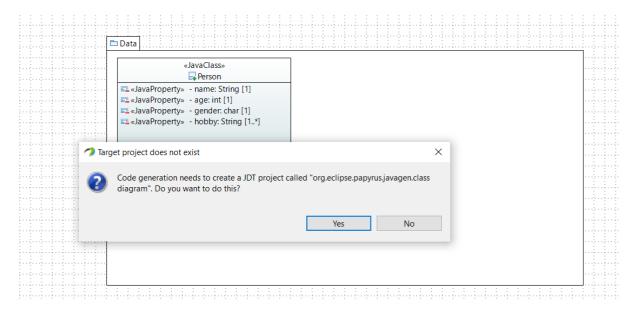
You can generate code for a specific classifier or package in your UML model. To generate code, do the following:

- Right click on classifier or package, either in a diagram or in the model explorer
- Designer > Generate Java code
- Follow the JDT dialogs that let you create a new JDT project in Eclipse, where code will be generated, if there is no JDT project associated with your model (e.g. the first time you generate code from your model)

When you generate code from a classifier, its required classifiers are also generated. Required classifiers are classifiers related for the generated classifier, e.g. typing one of its attributes, inheritance relationship, dependency relationship. When you generate code from a package (e.g. the root of your model), all of its classifiers, and their required classifiers, will be generated.







### Click on yes

