**COMP 6611**

**Software Measurement**

**Assignment 3**

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**Understand Api**

Understand Dll will work only on Py 3 not on Py 2.x so I need to switch from version 2 to 3. We also need to add the path to dll to our environment variable. After I just import the understand API to my code.

First I open the database file generated from the understand tool.

db = understand.open(args[1])

This will open up the udb file to query. To get the classes I used **ents** classwhich gave me all the classes inside the database.

**CBO Calculation**



To calculate CBO we need to know how many objects of other classes are called inside the class and how many classes are using the objects of the given class. So we use two methods from the API

Class.depends()

Class.dependsby()

These two methods will get the names of the classes whose methods are created inside the class and the name of the classes used the object of the given class. So we just count the result generated from these two and sum them up which gave us the CBO.

**Cohesion Calculation**

We couldn’t complete this part because of vague API methods descriptions. But what we tried to achieved was

* Get Class
  + Get class methods
  + Get class Atttributes
  + Check interaction b/w methods
  + Check if methods are calling class attributes

We think if we achieve to extract these data we would have calculated the Cohesion.