Refactoring Report

# Techniques for Refactoring:

Refactoring can be done in eclipse using following methods:

# Renaming:

**Following these simple steps to rename**:

* + Select the element
  + Right-click the element
  + Click the Refactor > Rename option
  + Type the new name
  + Press Enter

# When you do the above operation, Eclipse will look for every instance of that element in that file and replace them all. By picking the package name and executing the same activities as in the previous example, we may rename it. A pop-up window will emerge immediately, allowing us to rename the package as well as update references and rename sub-packages. Using the same actions or just clicking F2 from Project Explorer, we may rename a class or interface. This will bring up a pop-up window with choices for updating references as well as some additional settings

# Extracting:

Now, let's talk about extraction. Extracting code means **taking a piece of code and moving it.** Now, suppose we want to extract out the driver details to a different class. We can do this by **right-clicking anywhere within the class and choosing the**Refactor > Extract Class**option**. We can extract an interface by **right-clicking anywhere within the class and choosing the**Refactor > Extract Interface**option,**

We may want to extract the non-employment-related properties to a Person superclass. To extract items to a superclass, we can **right-click anywhere in the class and choose the**Refactor > Extract Superclass**option** to bring up the menu directly.

To invoke the Extract Method wizard, we need to perform the following steps:

* Select the lines of code we want to extract
* Right-click the selected area
* Click the Refactor > Extract Method option

and we want to extract it to a local variable.

To do this, we need to:

* Select the item
* Right-click and choose Refactor > Extract Local Variable

# In-lining:

To do this, we follow these steps:

* Select the item we want to inline
* Right-click and choose the Refactor > Inline option

**The last step can also be achieved by keyboard shortcut**Alt+Shift+I

# Push Down and Pull Up:

For moving methods down to child classes, we need to right-click anywhere in the class and choose the Refactor > Push Down option.

Similarly, for moving methods from a child class to parent class, we need to **right-click anywhere in the class and choose**Refactor > Pull Up.

# Changing a Method Signature:

To change the method signature of an existing method, we can follow a few simple steps:

* Select the method or place the cursor somewhere inside
* Right-click and choose Refactor > Change Method Signature

The last step can also be achieved by keyboard shortcut Alt+Shift+C.

# Moving

Sometimes, we simply want to **move methods to another existing class to make our code more object-oriented**.

 We can easily move this calculation logic in Eclipse:

* Select the lines you want to move
* Right-click and choose the Refactor > Move option.

The last step can also be achieved by keyboard shortcut Alt+Shift+V: