

School of Computer Science Engineering and Technology

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Batch- 2021-2025

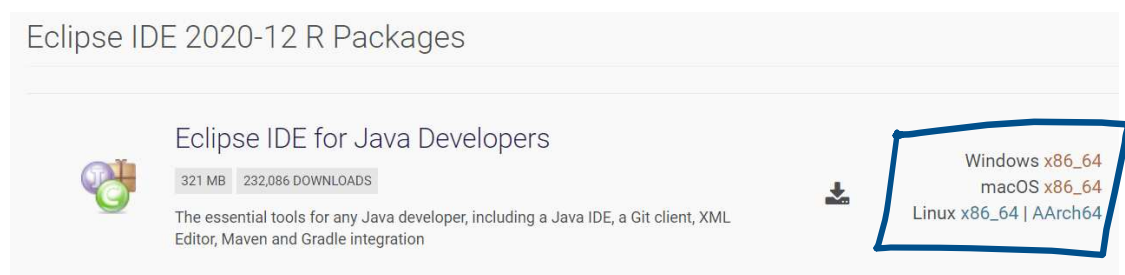
Lab Assignment No. (2.2)

Working with the Eclipse IDE

This lab exposes you to the Integrated Development Environment (IDE) utilized by the professional software developers (instead of traditional notepads) to develop a high-quality software product. The utilization of IDE's enables developers to deliver a quality product with less time and cost. There are multiple IDE's available and are utilized based on industrial standards/needs. In this lab, we will utilize Eclipse IDE, one of the well-known IDE, to create a project and solve a problem that familiarizes with the IDE.

1. In this lab session, we will explore Eclipse. Use the link below to download Eclipse (if it is not installed on your PC).

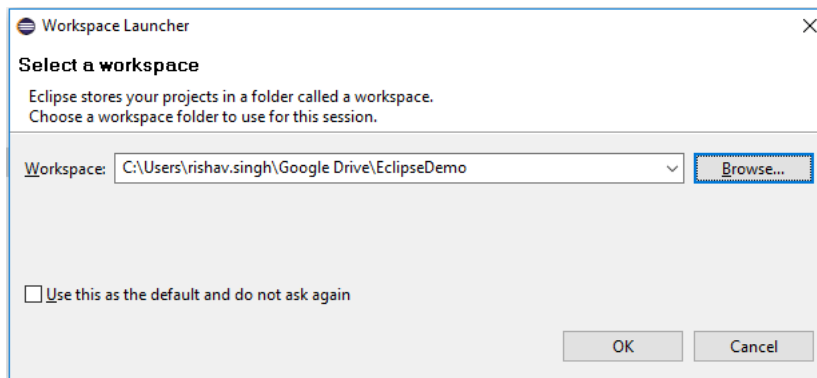
<https://www.eclipse.org/downloads/packages/>



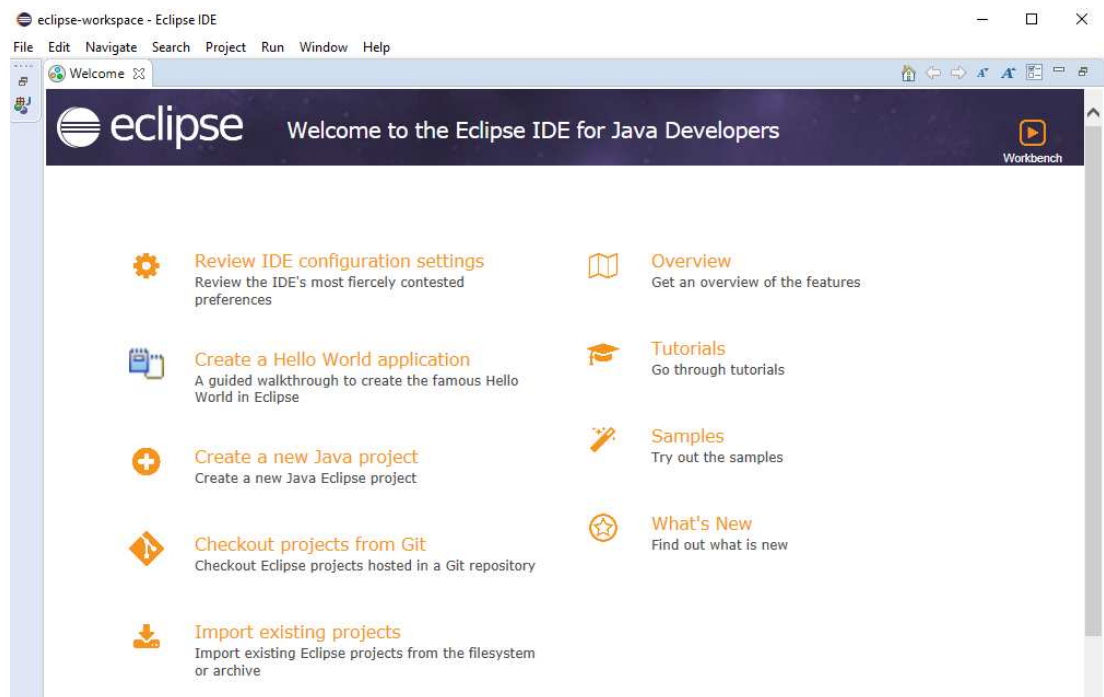
Execute the downloaded setup file and install.

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2. Create a workspace for your project.



3. A welcome screen will be displayed on your screen.

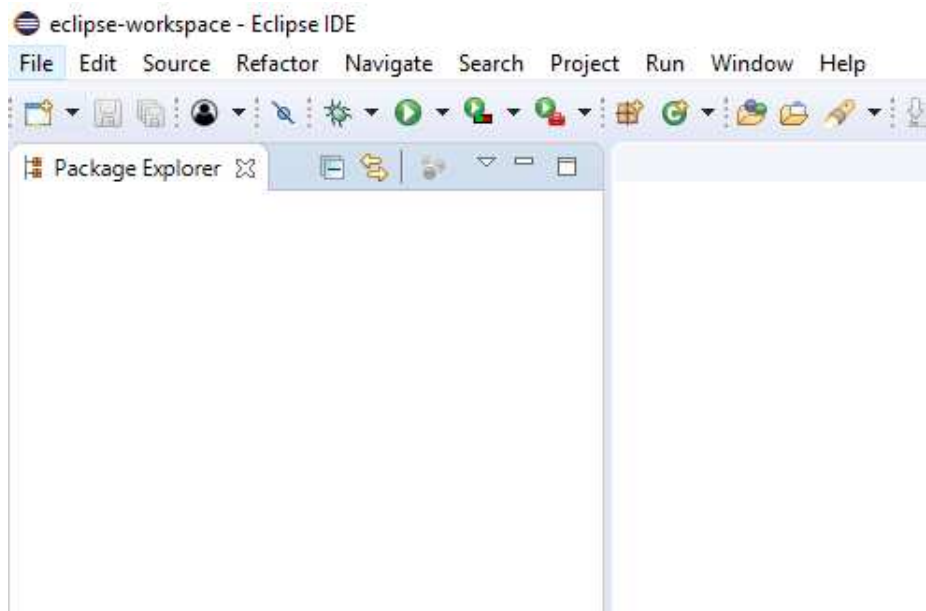


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4. Click on the restore symbol on the top left.

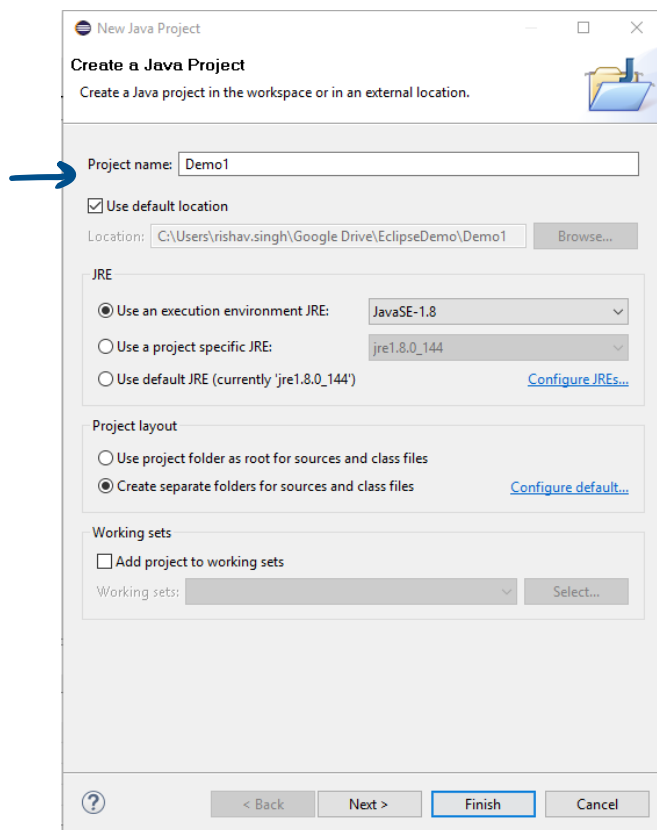


5. You will see the following screen.

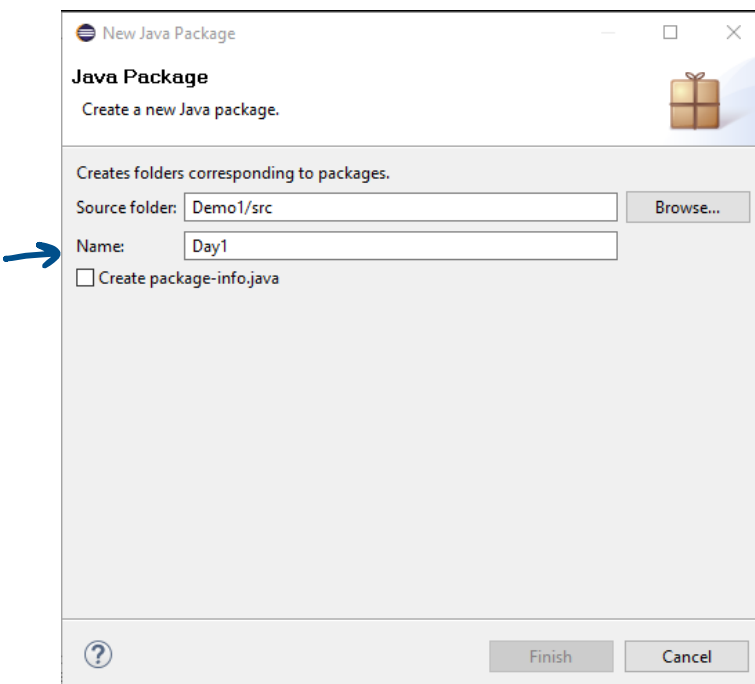


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6. Click on the “**File -> New -> Java**” Project to create a new java project.

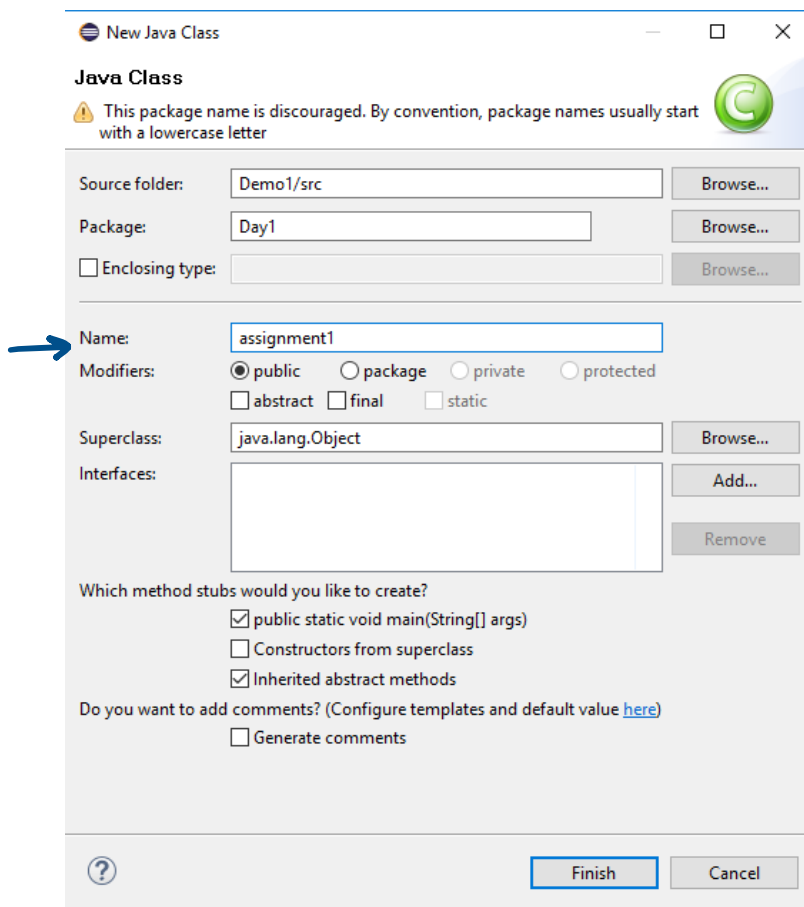


7. Right-click on the project to create a package. “**New -> package**”

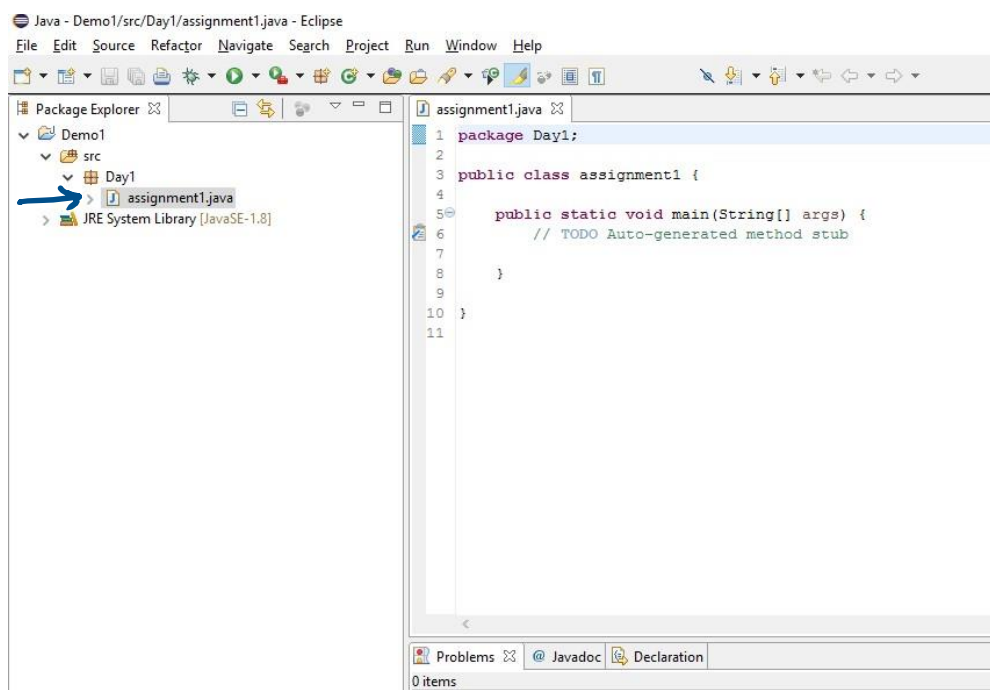


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8. Right on the package to create a Java class file. “**New -> Class**”



9. A new Java file is created. Create your code and execute it.



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Task – Movie Category Prediction

Based on the previous steps, create a JAVA program (moviePrediction.java) for the movie category (Action/Comedy) prediction.

Take insights from the video: <https://youtu.be/hCt21PMObGk>

Train Data

Sl. No.	No. of actions scenes	No. of comedy scenes	Category
1	100	0	Action
2	0	100	Comedy
3	90	17	Action
4	21	80	Comedy

Note: For simplicity, you can change the categorical data to integers. (Action as 1 and Comedy as 0)

Test Data

Sl. No.	No. of actions scene	No. of the comedy scene
1	10	90

Follow the steps below to predict the movie category:

1. Compute Euclidean distance ($\sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$) of test data from **all the train data**. Consider “No. of actions scene” in the X-axis and “No. of comedy scene” on the Y-axis.
2. Find the nearest data point or the minimum distance.
3. Check the category of the train data of the nearest distance, and it will become the predicted category of the movie (e.g., minimum distance was calculated via #2 in the training dataset. Hence, the category of the entered movie will be Comedy – same as of #2).

Use the validation data to validate your model. **Your program should ask for the number of Action and Comedy scenes from the user (entered from the validation data).**

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Validation Data

Sl. No.	No. of actions scene	No. of the comedy scene
1	10	90
2	79	15
3	50	50

Save your work and submit the JAVA file [Use your name and enrolment in comments on top] .and the snapshot of program execution with all validation data as input and the output on LMS (total 2 files).