**Date – 14/02/2022**

**ASSIGNMENT NO 2**
**(Software Development Frameworks)**
**PRN- 2020BTECS00211**
**Name – Aashita Gupta**
**Course – SET LAB**

**Q.1) Framework/IDE/Software: Eclipse**
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Eclipse is an integrated development environment (IDE) used in computer programming. It contains a base workspace and an extensible plug-in system for customizing the environment. It is the second-most-popular IDE for Java development, and, until 2016, was the most popular. Eclipse is written mostly in Java and its primary use is for developing Java applications,[7] but it may also be used to develop applications in other programming languages via plug-ins, including Ada, ABAP, C, C++, C#, Clojure, COBOL, D, Erlang, Fortran, Groovy, Haskell, JavaScript, Julia, Lasso, Lua, NATURAL, Perl, PHP, Prolog, Python, R, Ruby (including Ruby on Rails framework), Rust, Scala, and Scheme. It can also be used to develop documents with LaTeX (via a TeXlipse plug-in) and packages for the software Mathematica. Development environments include the Eclipse Java development tools (JDT) for Java and Scala, Eclipse CDT for C/C++, and Eclipse PDT for PHP, among others.

**Original author**
- IBM

**Developers**
- Eclipse Foundation

**Initial release**
- 1.0 / 7 November 2001; 20 years ago

**Stable release**
- 4.22.0 Edit this on Wikidata / 8 December 2021 (2 months ago)

**Preview release**
- 4.21 (2021-09 release)

**Repository (with cloud support )**
- git.eclipse.org/c

**Written in (Languages)**
- Java and C

**Operating System support**
- Linux, macOS, Windows

**Platform ,portability**
- Java SE, Standard Widget Toolkit, x86-64

**Available in (Total languages)**
- 44 languages

**List of languages supported**
- Albanian, Arabic, Basque, Bulgarian, Catalan, Chinese (simplified, traditional), Czech, Danish, Dutch, English (Australia, Canada), Estonian, Finnish, French, German, Greek, Hebrew, Hindi, Hungarian, Indonesian, Italian, Japanese, Klingon, Korean, Kurdish, Lithuanian, Malayalam, Mongolian, Myanmar, Nepali, Norwegian, Persian, Polish, Portuguese (Portugal, Brazil), Romanian, Russian, Serbian, Slovak, Slovenian, Spanish, Swedish, Thai, Turkish, Ukrainian, Vietnamese

**Type**
- Programming tool, integrated development environment (IDE)

**Website**
- www.eclipse.org/eclipseide/

**Features**
- a runtime core,
- a collection of libraries,
- a modelling and control language,
- a development environment,
- interfaces for embedding into host environments,

- interfaces to third-party solvers.

**Size (in MB, GB etc.)**
- 182 MB

**Privacy and Security**
-
Eclipse Foundation Website Privacy Policy
The Eclipse Foundation, Inc. ("Eclipse Foundation", "Us" or "We") is a member-supported not-for-profit foundation which acts as the steward of our open source projects, community, and ecosystem. We are committed to our community members' rights to privacy. We promise to share transparently all aspects of how Eclipse Foundation projects and websites work in regards to privacy, terms, and personal data, and We are in full support of efforts to ensure your protection online. We only collect your personal data with your consent, and collect only as much as We need to provide you the service you request. For example, We need your personal data to register you to one of our conferences. Each time We collect additional personal data from you We will explain what We collect, why We need it, how We use it, how long We keep it, and how We protect it. You can withdraw consent anytime. We will respect your wishes.

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**Type of software (Open source/License)**
- The Eclipse Public License (EPL) is a free and open source software license most notably used for the Eclipse IDE and other projects by the Eclipse Foundation. It replaces the Common Public License (CPL) and removes certain terms relating to litigations related to patents.

**If License- Provide details.**

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Applicable Licenses

Unless otherwise indicated, all Content made available by the Eclipse Foundation is provided to you under the terms and conditions of the Eclipse Public License Version 2.0 ("EPL"). A copy of the EPL is provided with this Content and is also available at http://www.eclipse.org/legal/epl-2.0. For purposes of the EPL, "Program" will mean the Content.

Content includes, but is not limited to, source code, object code, documentation and other files maintained in the Eclipse Foundation source code repository ("Repository") in software modules ("Modules") and made available as downloadable archives ("Downloads").

- Content may be structured and packaged into modules to facilitate delivering, extending, and upgrading the Content. Typical modules may include plug-ins ("Plug-ins"), plug-in fragments ("Fragments"), and features ("Features").
- Each Plug-in or Fragment may be packaged as a sub-directory or JAR (Java™ ARchive) in a directory named "plugins".
- A Feature is a bundle of one or more Plug-ins and/or Fragments and associated material. Each Feature may be packaged as a sub-directory in a directory named "features". Within a Feature, files named "feature.xml" may contain a list of the names and version numbers of the Plug-ins and/or Fragments associated with that Feature.
- Features may also include other Features ("Included Features"). Within a Feature, files named "feature.xml" may contain a list of the names and version numbers of Included Features.

The terms and conditions governing Plug-ins and Fragments should be contained in files named "about.html" ("Abouts"). The terms and conditions governing Features and Included Features should be contained in files named "license.html" ("Feature Licenses"). Abouts and Feature Licenses may be located in any directory of a Download or Module including, but not limited to the following locations:

- The top-level (root) directory
- Plug-in and Fragment directories
- Inside Plug-ins and Fragments packaged as JARs
- Sub-directories of the directory named "src" of certain Plug-ins
- Feature directories

**Latest version**

- Eclipse IDE for Java EE Developers (current newest version is 3.7. 1, SR1)

**Cloud support (Yes/No)**

- Develop your software wherever you go. It'll be there, in the cloud, right where you left it. Use your browser to develop with hosted workspaces or install desktop packaging to experience a modern development environment for Java, JavaScript, CSS, and HTML.


**Applicability**

-

Eclipse IDE for Parallel Application Developers (includes Incubating components)
Package Description
An IDE for Parallel Application Developers. Includes the C/C++ IDE, plus tools for Fortran, UPC, MPI, a parallel debugger, etc. Note that this package includes some incubating components, as indicated by features with "(Incubation)" following their name.
This package includes:
Detailed features list

- org.eclipse.epp.package.common.feature
- org.eclipse.platform
- org.eclipse.cvs
- org.eclipse.equinox.p2.user.ui
- org.eclipse.help
- org.eclipse.rcp
- org.eclipse.cdt.platform
- org.eclipse.cdt
- org.eclipse.cdt.mylyn
- org.eclipse.cdt.p2
- org.eclipse.cdt.debug.ui.memory
- org.eclipse.cdt.core.parser.upc.feature
- org.eclipse.cdt.xlc.feature
- org.eclipse.linuxtools.cdt.autotools
- org.eclipse.cdt.bupc
- org.eclipse.mylyn_feature
- org.eclipse.mylyn.context_feature
- org.eclipse.mylyn.team_feature
- org.eclipse.mylyn.ide_feature
- org.eclipse.mylyn.bugzilla_feature
- org.eclipse.mylyn.wikitext_feature
- org.eclipse.rse
- org.eclipse.ptp
- org.eclipse.ptp.rdt
- org.eclipse.ptp.rdt.sync
- org.eclipse.ptp.rdt.sync.fortran
- org.eclipse.ptp.rdt.xlc
- org.eclipse.ptp.remote.rse

- org.eclipse.ptp.pldt.upc
- org.eclipse.photran
- org.eclipse.rephraserengine
- org.eclipse.jgit
- org.eclipse.linuxtools.cdt.libhover.feature
- org.eclipse.linuxtools.changelog
- org.eclipse.linuxtools.gcov
- org.eclipse.linuxtools.gprof.feature
- org.eclipse.wst.xml_ui.feature

**Drawbacks (if any)**

- Setting up of eclipse is a tad tiresome. If you are not used to use this IDE, it will be hard to understand the project explorer.
- Uses more RAM and becomes slow. Difficult to use for languages other than Java.
- Nothing to dislike but it not support web development and it takes more memory location.

**Q.2) Implement linear regression problem using Google colab (Perform preprocessing, training and testing).**

**Dataset -** Dogs vs. Cats Redux: Kernels Edition

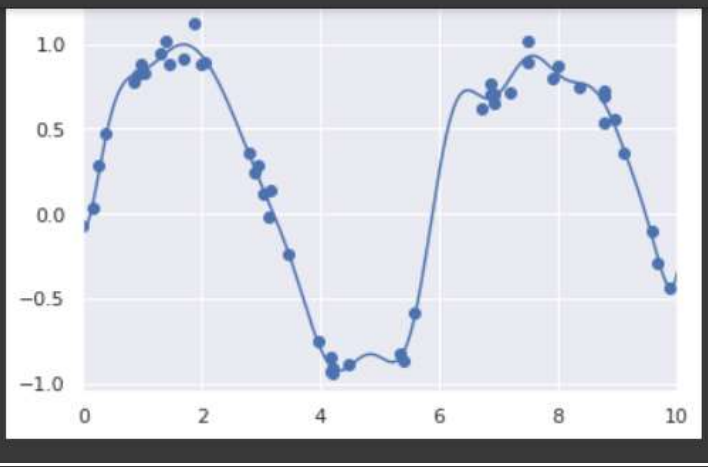
→

Untitled2.ipynb

File Edit View Insert Runtime Tools Help All changes saved

+ Code + Text

[12]




SET2.ipynb

File Edit View Insert Runtime Tools Help All changes saved

Comment Share

+ Code + Text

RAM Disk Editing

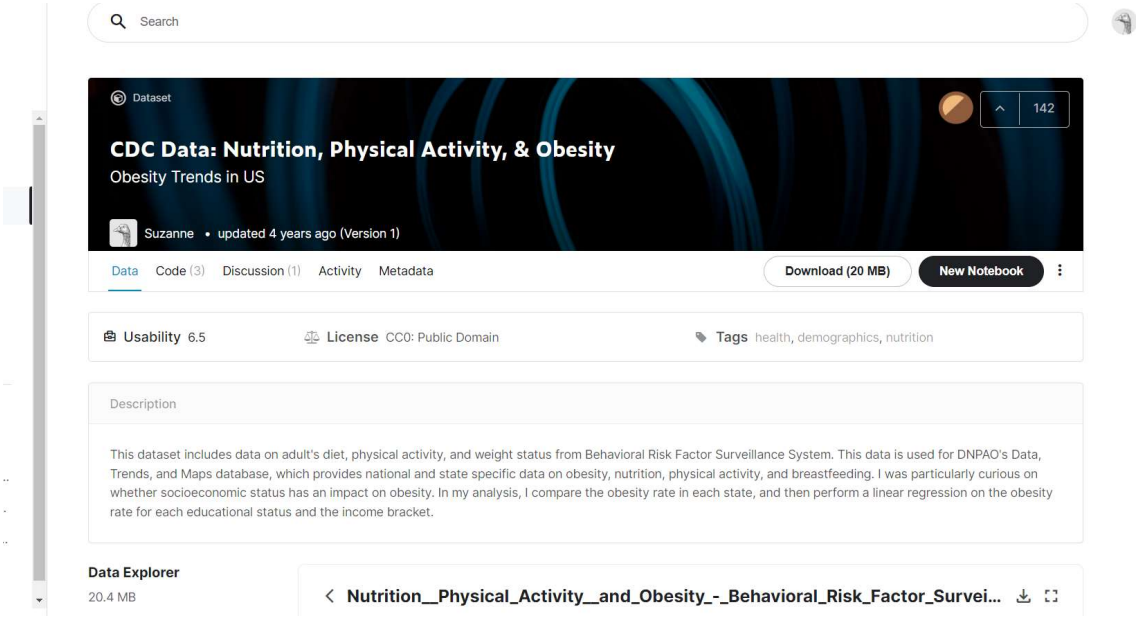
```
[ ] pip install -q kaggle

[1] from google.colab import files
    files.upload()
```

Choose Files kaggle.json

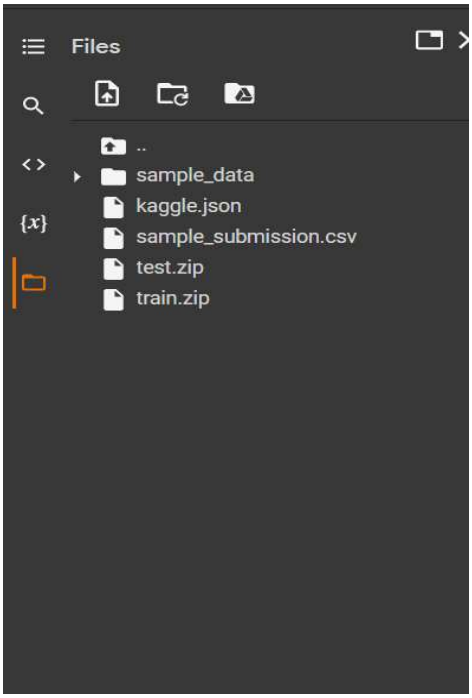
- **kaggle.json**(application/json) - 67 bytes, last modified: 2/14/2022 - 100% done

```
Saving kaggle.json to kaggle.json
{'kaggle.json': b'{"username":"aashita0609","key":"2b539acc07fa5c42fd1542ee1773453d"}'}

[2] ! mkdir ~/.kaggle

[3] ! cp kaggle.json ~/.kaggle/

[5] ! chmod 600 ~/.kaggle/kaggle.json
```

```
! kaggle datasets list

Warning: Looks like you're using an outdated API Version, please consider updating (server 1.5.12 / client 1.5.4)
ref                                                         title                                              size  lastUpdated          downloadCount
----------------------------------------------------------  -------------------------------------------------  ----  -------------------  -------------
prasertk/netflix-subscription-price-in-different-countries  Netflix subscription fee in different countries     3KB  2022-01-15 07:06:09           3226
nkitgupta/jigsaw-regression-based-data                      Jigsaw Regression Based Data                       3GB  2022-02-05 20:51:56            895
yasserh/wine-quality-dataset                                Wine Quality Dataset                              21KB  2022-01-15 19:15:11           3148
majyhain/height-of-male-and-female-by-country-2022          Height of Male and Female by Country 2022          4KB  2022-02-02 00:40:19           1015
sanjeetsinghnaik/top-1000-highest-grossing-movies           Top 1000 Highest Grossing Movies                 106KB  2022-01-15 16:26:14           2052
yamqwe/air-traffic-passenger-datae                          🛬 Air Traffic Passenger Data                     173KB  2022-02-08 15:33:44            920
iamsouravbanerjee/analytics-industry-salaries-2022-india    Data Professionals Salary - 2022                  57KB  2022-02-04 09:04:46           3251
robikscube/ubiquant-parquet                                 Ubiquant Competition Data in Parquet Format       13GB  2022-01-19 14:18:59           1431
yamqwe/netflix-showse                                       Netflix Shows                                     11KB  2022-02-08 15:33:37           1768
georgesaavedra/covid19-dataset                              COVID-19 dataset                                   9MB  2022-02-11 16:14:49           1267
yamqwe/shark-tank-companiese                                🦈 Shark Tank Companies                           70KB  2022-02-08 15:35:24            751
dansbecker/melbourne-housing-snapshot                       Melbourne Housing Snapshot                       451KB  2018-06-05 12:52:24          80602
datasnaek/youtube-new                                       Trending YouTube Video Statistics                201MB  2019-06-03 00:56:47         165712
maricinnamon/harry-potter-movies-dataset                    Harry Potter Movies Dataset                      211KB  2022-01-14 10:13:19            723
vivovinco/nba-player-stats                                  2021-2022 NBA Player Stats                        29KB  2022-01-22 14:53:22            797
kenjee/ken-jee-youtube-data                                 Ken Jee YouTube Data                               6MB  2022-01-22 20:38:53            232
zynicide/wine-reviews                                       Wine Reviews                                      51MB  2017-11-27 17:08:04         154157
residentmario/ramen-ratings                                 Ramen Ratings                                     40KB  2018-01-11 16:04:39          32442
datasnaek/chess                                             Chess Game Dataset (Lichess)                       3MB  2017-09-04 03:09:09          27610
rtatman/188-million-us-wildfires                            1.88 Million US Wildfires                        168MB  2020-05-12 21:03:49          18878
```




```
! kaggle competitions download -c dogs-vs-cats-redux-kernels-edition

Warning: Looks like you're using an outdated API Version, please consider updating (server 1.5.12 / client 1.5.4)
Downloading test.zip to /content
 97% 264M/271M [00:01<00:00, 183MB/s]
100% 271M/271M [00:01<00:00, 155MB/s]
Downloading train.zip to /content
 97% 529M/544M [00:03<00:00, 158MB/s]
100% 544M/544M [00:03<00:00, 152MB/s]
Downloading sample_submission.csv to /content
  0% 0.00/111k [00:00<?, ?B/s]
100% 111k/111k [00:00<00:00, 112MB/s]
```



```
! unzip train.zip
```

```
  inflating: train/dog.8639.jpg
  inflating: train/dog.864.jpg
  inflating: train/dog.8640.jpg
  inflating: train/dog.8641.jpg
  inflating: train/dog.8642.jpg
  inflating: train/dog.8643.jpg
  inflating: train/dog.8644.jpg
  inflating: train/dog.8645.jpg
  inflating: train/dog.8646.jpg
  inflating: train/dog.8647.jpg
  inflating: train/dog.8648.jpg
  inflating: train/dog.8649.jpg
  inflating: train/dog.865.jpg
  inflating: train/dog.8650.jpg
  inflating: train/dog.8651.jpg
  inflating: train/dog.8652.jpg
  inflating: train/dog.8653.jpg
  inflating: train/dog.8654.jpg
  inflating: train/dog.8655.jpg
  inflating: train/dog.8656.jpg
  inflating: train/dog.8657.jpg
  inflating: train/dog.8658.jpg
  inflating: train/dog.8659.jpg
  inflating: train/dog.866.jpg
  inflating: train/dog.8660.jpg
  inflating: train/dog.8661.jpg
  inflating: train/dog.8662.jpg
  inflating: train/dog.8663.jpg
```

```
! unzip test.zip
```

```
  inflating: test/9904.jpg
  inflating: test/9905.jpg
  inflating: test/9906.jpg
  inflating: test/9907.jpg
  inflating: test/9908.jpg
  inflating: test/9909.jpg
  inflating: test/991.jpg
  inflating: test/9910.jpg
  inflating: test/9911.jpg
  inflating: test/9912.jpg
  inflating: test/9913.jpg
  inflating: test/9914.jpg
  inflating: test/9915.jpg
  inflating: test/9916.jpg
  inflating: test/9917.jpg
  inflating: test/9918.jpg
  inflating: test/9919.jpg
  inflating: test/992.jpg
  inflating: test/9920.jpg
  inflating: test/9921.jpg
  inflating: test/9922.jpg
  inflating: test/9923.jpg
  inflating: test/9924.jpg
  inflating: test/9925.jpg
  inflating: test/9926.jpg
  inflating: test/9927.jpg
  inflating: test/9928.jpg
```