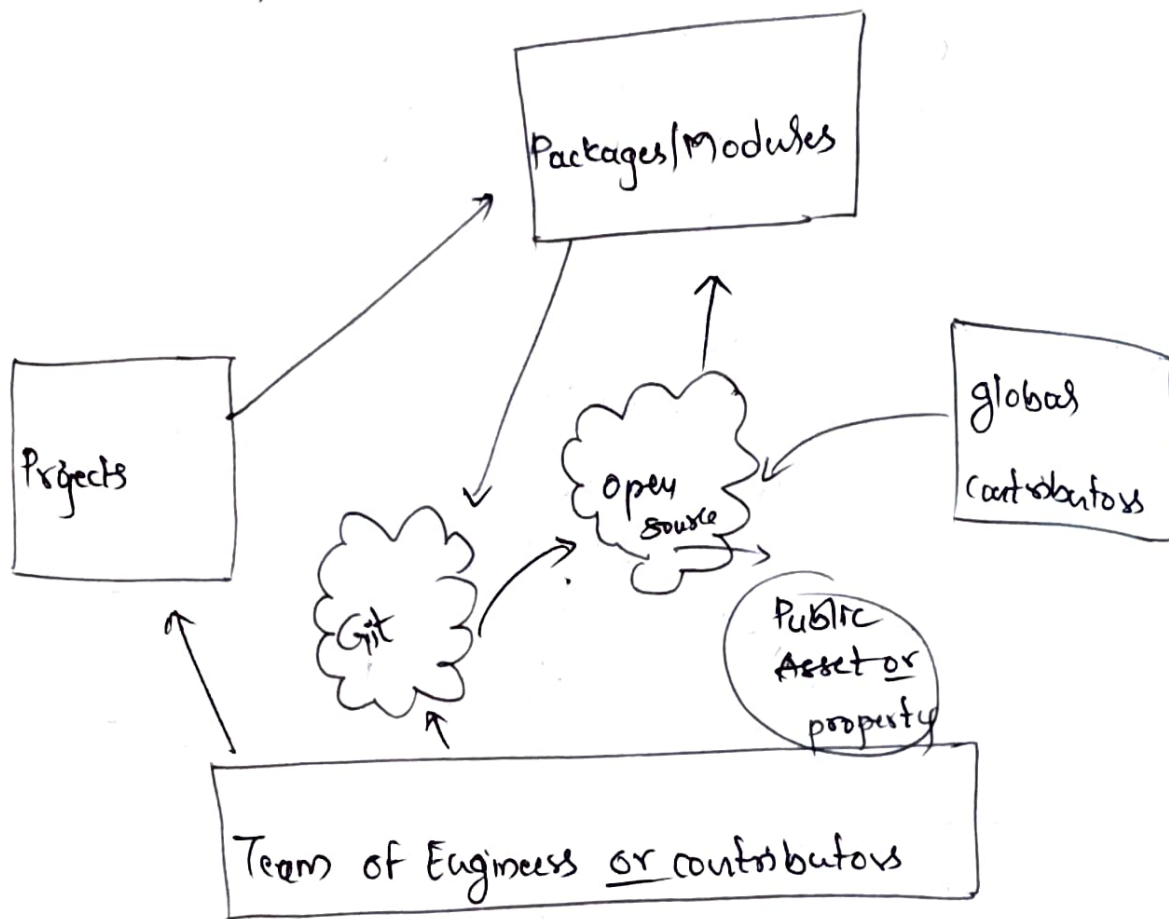


INTRODUCTION TO Working with Packages and modules

Any Realworld software contains millions of lines of code under which Thousands of Engineers working together

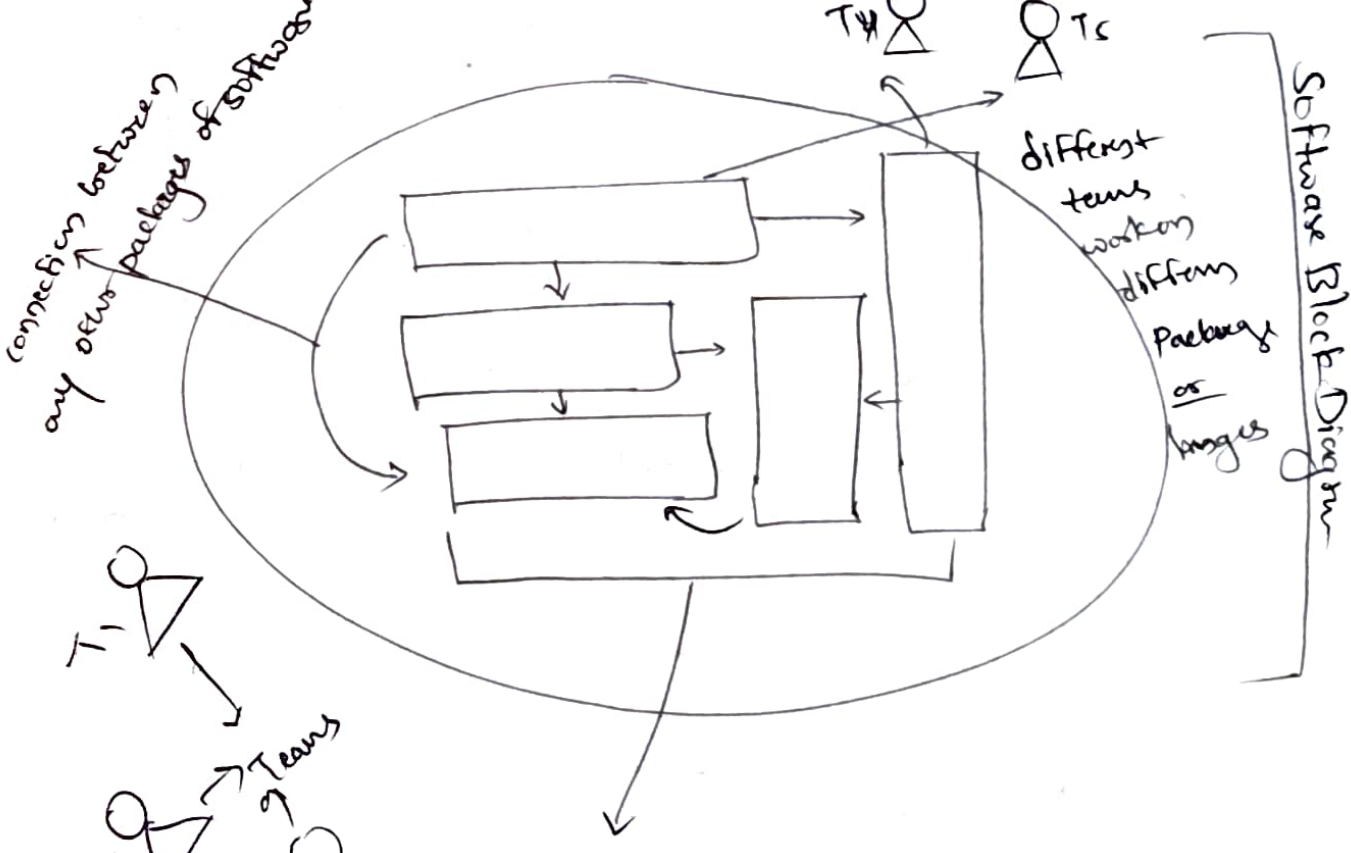
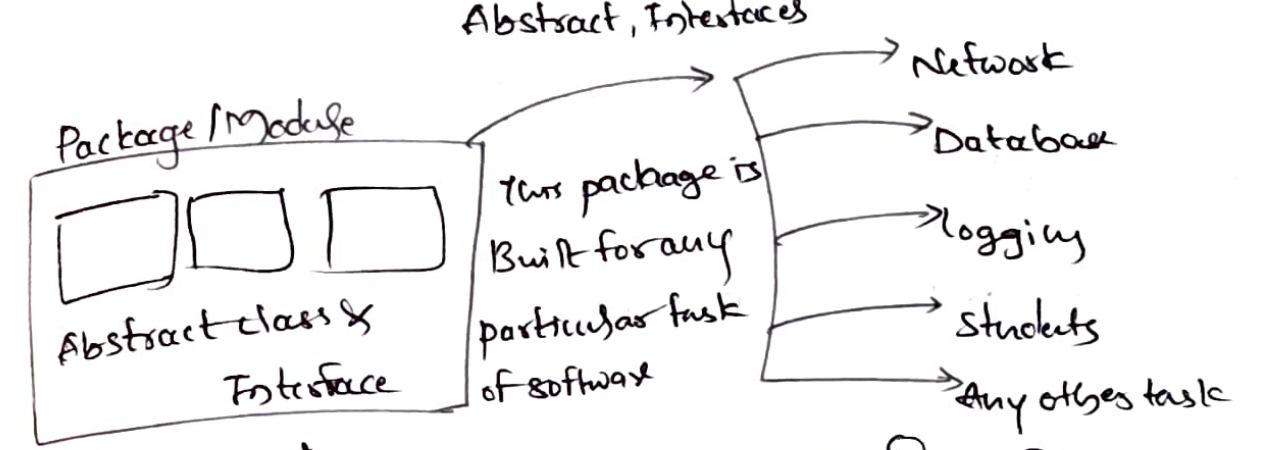
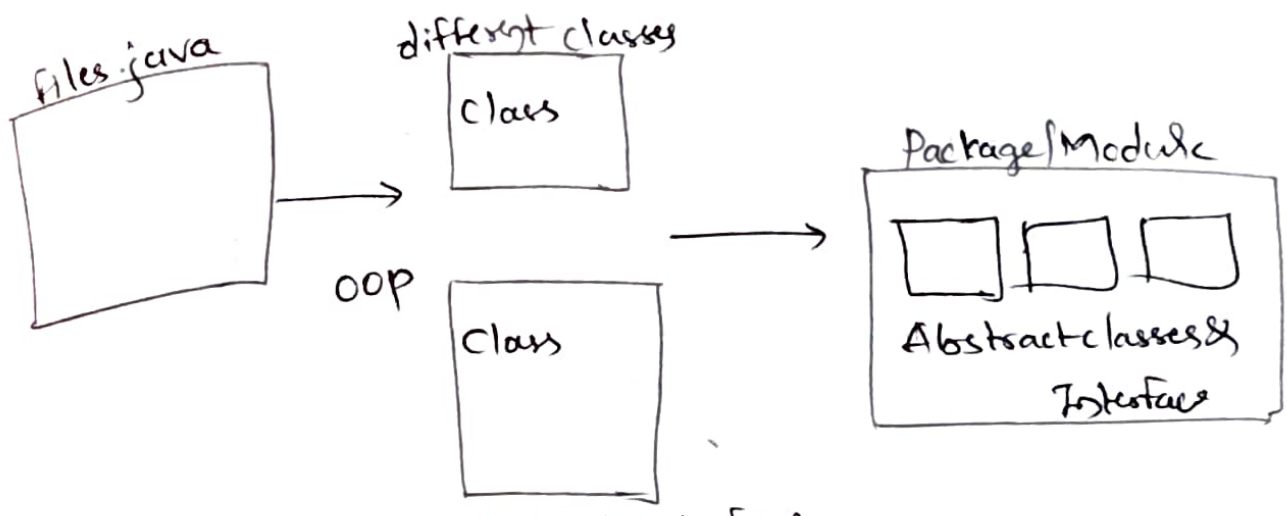
So we have to organize and maintain the code in a systematic way.



Consider Any project It has to be maintained and well organized.

When it comes to opensource Most of the common code which solves the common problem or provides services to different types of Business have same service need

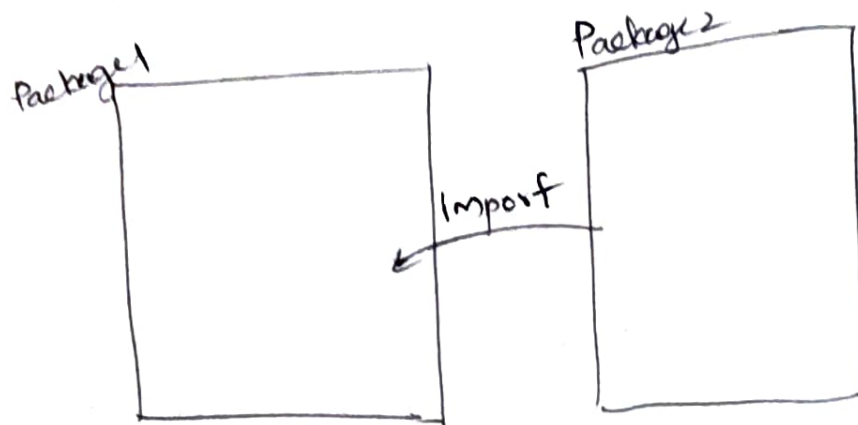
So the code made opensource so that any global contributors can contribute to the software and anyone make use of that open source software.



An Application or a software service contains different packages, components, layers, relations

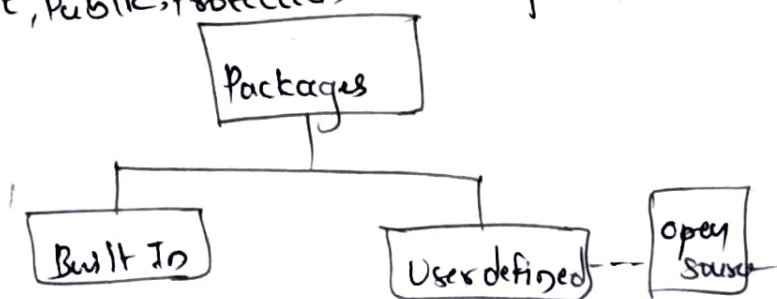
If we organize and maintain the software in a systematic way so that software developers can work collaboratively.

Different Teams work on different package or module of software.



Advantages of using Packages in JAVA

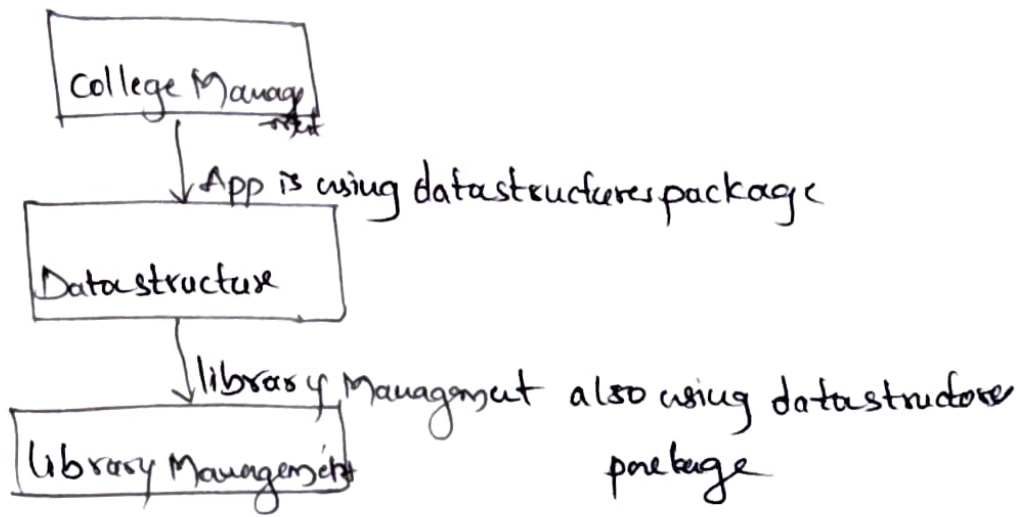
- *Modularity: Packages Break large projects into smaller, Manageable, development easy.
- *Reusability: Classes inside a package can be reused across different projects or part of same project helps to avoid Redundancy.
- *Namespace Management: Prevents class Name conflicts
- *Organization: Package organize classes and interface into meaningful related groups improving code Readability.
- *Access Control: Packages provide different levels of access protection (default, Public, Protected) to encapsulate classes and Interfaces.



Multiple packages in a software But only two required things are used in a file to perform some operation.

import describe which package is connecting with which Package only that connected package is used in a particular Package.

lets understand with Simple Example

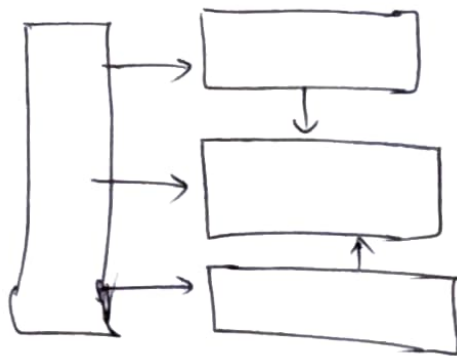


we can observe in the above figure that the college Management is not using the library Management & vice versa.

Block Diagram: Understanding which package is used by which files and shows the connectivity with neat picture.

with the help of Block Diagram, we can have the clear picture of the software its working packages & connectivity.

3rd party library / open source



Block Diagram