NAME : PAREENITA A.SHIRSATH PRN : 221101062 ROLL.NO : 57 T.E.A.I.&.D.S.

**SEPM EXPERIMENT 4**

**Aim:** To understand Continuous Integration, install and configure Jenkins with Maven/Ant/

Gradle to setup a build Job

**Theory :**

**Continuous Integration**

a) Continuous Integration (CI) in software engineering is a development practice where

team members integrate their code changes into a shared repository frequently, typically

multiple times a day. Each integration is verified by an automated build and automated

tests to detect integration errors early in the development process.

b) The goal of CI is to improve collaboration among team members, detect and fix

integration issues quickly, and ensure that the software is always in a working state.

c) It helps streamline the development process, reduce integration problems, and deliver

high-quality software more efficiently.

**Jenkins**

a) Jenkins is an open-source automation server that is used to automate various tasks

involved in the software development process, such as building, testing, and deploying

software.

b) It allows developers to automate the continuous integration and continuous delivery

(CI/CD) pipelines by defining a series of steps or jobs that Jenkins executes

automatically.

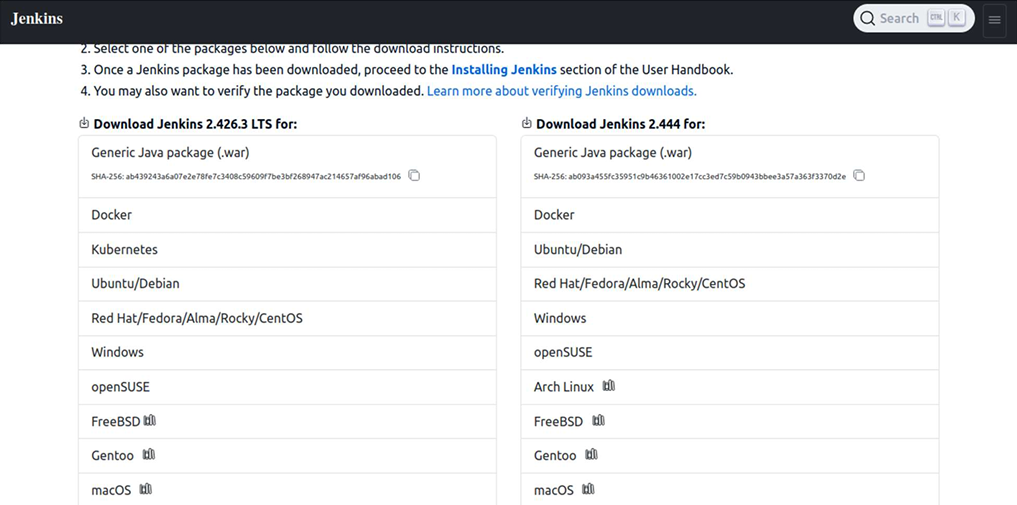
c) Jenkins supports integration with a wide range of tools and technologies, making it a

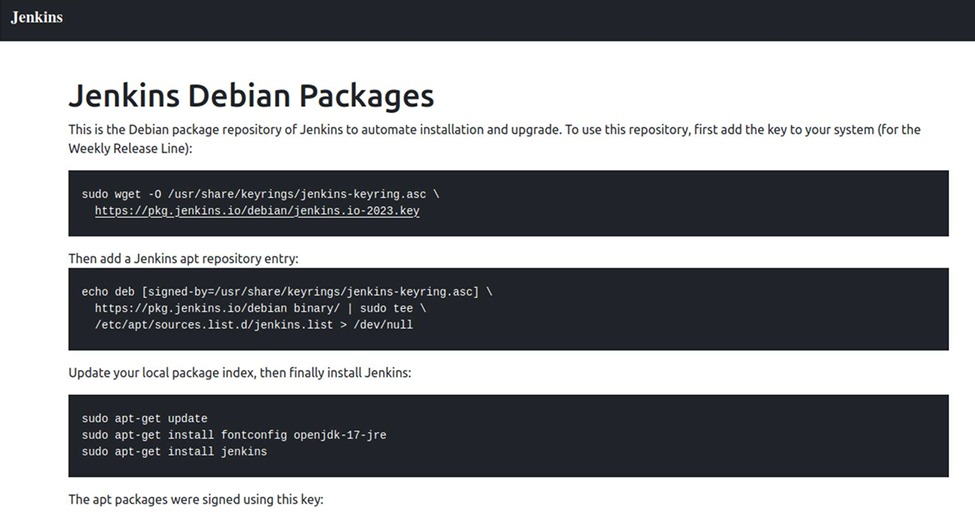
popular choice for automating software development workflows.

d) It helps teams improve productivity, increase efficiency, and ensure the quality of

software releases through automation and continuous integration practices.

**Output:**

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