Explanation of Gradle build Process

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Version: 1.7
Created: 05/30/2024
Last Updated: 05/30/2024
Status: Complete

Revision Sheet

Version	Date	Author	Description of Change
1.1	5/30/2024	Krishna	Initial Draft: Setting Up a Gradle Project
1.2	5/30/2024	Asha	Revised Draft: Understanding build.gradle
1.3	5/30/2024	Harsha Vardhan	Revised Draft: Running the Build
1.4	5/30/2024	Hrushikesh	Revised Draft: Using Properties Files
1.5	5/30/2024	Tahir	Revised Draft: Customizing the Build
1.6	5/30/2024	Manish	Revised Draft: Using Environment-Specific Properties
1.7	5/30/2024	Anupam	Revised Draft: Running the Build with Different Environments

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1. Setting Up a Gradle Project

Initializing a Project

When starting a new project with Gradle, you initialize it with certain configurations and settings.

Project Structure

Organizing your project's files and directories in a structured manner for efficient development and build processes.

2. Understanding build.gradle

Basic build.gradle

The central configuration file for your Gradle project, containing essential settings for project build and tasks.

- **Plugins:** Extensions that provide additional functionality to your project.
- **Repositories:** Locations where Gradle looks for dependencies.
- **Dependencies:** External libraries or modules required by your project.
- **Tasks:** Actions or operations to be executed during the build process.

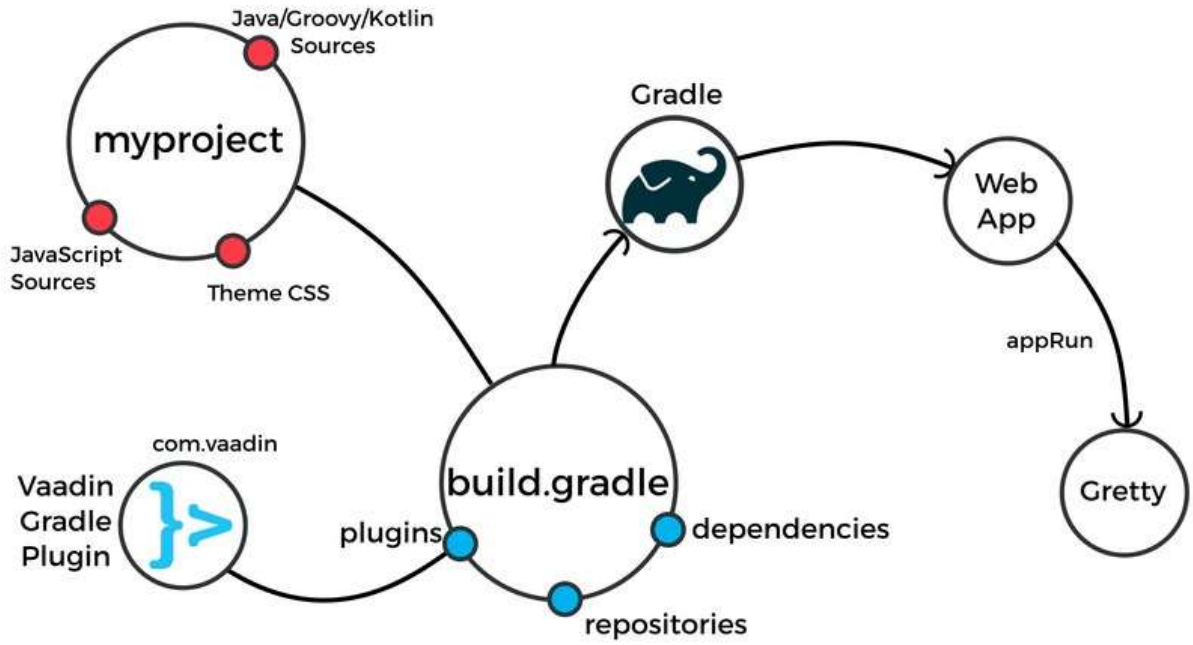
3. Running the Build

Building the Project

Executing the build process to compile source code, run tests, and create artifacts.

Default build Task

Defining the default task to execute when running gradle build.



4. Using Properties Files

gradle.properties

A file for defining custom properties used in the build process.

- **Defining Properties:** Setting up key-value pairs for various configurations.

Accessing Properties in build.gradle

Utilizing properties defined in gradle.properties within your build.gradle script for flexible configuration.

5. Customizing the Build

Custom Task

Creating custom tasks to perform specific actions tailored to your project's requirements.

Task Dependencies

Defining dependencies between tasks to ensure proper execution order.

6. Using Environment-Specific Properties

Example Setup

Illustrating how to set up environment-specific configurations for different deployment environments.

- **Loading Environment-Specific Properties:** Reading environment-specific properties into the build process.

7. Running the Build with Different Environments

Specifying the Environment

Allowing users to specify the target environment for the build process.

Building for Different Environments

Adapting the build configuration and output based on the specified environment.

This documentation provides a comprehensive guide to understanding Gradle build and properties files, empowering you to effectively configure and customize your projects for various environments and requirements.

THANK YOU