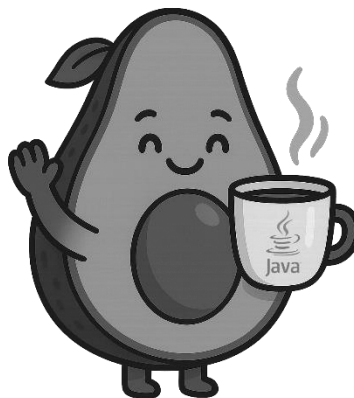


# Javocado

Learning Java made Easier in one App

iLS for Mobile App Programming 1 and Computer/Web Programming 3

The Purpose of Javocado is to help Young and Inspired  
Programmers to Practice & Learn the Java Programming  
Language in a Gamified App.



2024



# Javocado – Group 6

## Documentation

- Handles UI setup, seed updates, and dynamic lesson creation.
- Maintains persistent app memory logic via nested Memory class.

### 2.MainActivity.Memory

#### Connections:

- Accessed by MainActivity, DeveloperOptionsFragment, LessonActivity, and LessonDoneFragment.
- Central storage interface for persistent data.

#### Description:

- Manages SharedPreferences: current chapter, seed count, lesson completion.

### 3.LessonActivity

#### Connections:

- Creates and interacts with all \*Fragment classes related to lessons.
- Accesses Prefabs and Memory.
- Contains multiple LessonLevel instances and uses LevelType.

# Javocado – Group 6

## Documentation

### Description:

- Controls lesson flow: level loading, user progress, failure count.
- Navigates between question fragments and result fragments.

## 4.LessonActivity

### Connections:

- Creates and interacts with all \*Fragment classes related to lessons.
- Accesses Prefabs and Memory.
- Contains multiple LessonLevel instances and uses LevelType.

### Description:

- Controls lesson flow: level loading, user progress, failure count.
- Navigates between question fragments and result fragments.

# Javocado – Group 6

## Documentation

### 5. LessonActivity.LessonLevel

- **Connections:**
  - Contains Rewards, uses LevelType.
  - Accessed by all quiz-type fragments.
- **Description:**
  - Encapsulates data for individual levels: question, answers, clues, type.
  - Tracks user's performance (e.g., failure count).

### 6. LessonLevel.Rewards

- **Connections:**
  - Owned by LessonLevel.
- **Description:**
  - Stores and provides access to the reward (e.g., seed count) of a level.

### 7. ChaptersFragment

- **Connections:**

## Javocado – Group 6

# Documentation

- Started by MainActivity, can restart it.
- Uses Prefabs to get ChapterData.
- **Description:**
  - Displays all chapters in a scrollable view.
  - Handles chapter click logic and progress visualization.

## 8.DeveloperOptionsFragment

- **Connections:**
  - Started by MainActivity, accesses Memory.
- **Description:**
  - Offers debug or developer settings.
  - May modify app state using Memory.

## 9.SplashActivity

- **Connections:**
  - Starts MainActivity.
- **Description:**
  - Initial screen shown to users before main app loads.

# Javocado – Group 6

## Documentation

### 10. Prefabs

- **Connections:**
  - Provides chapter and lesson data to MainActivity, LessonActivity, and ChaptersFragment.
  - Owns multiple ChapterData.
- **Description:**
  - Central static utility for accessing predefined content structures.
  - Caches chapter data for reuse.

### 11. ChapterData

- **Connections:**
  - Owned by Prefabs, contains multiple LessonData.
- **Description:**
  - Represents a single chapter with metadata and associated lessons.

### 12. LessonData

- **Connections:**

## Javocado – Group 6 Documentation

- Belongs to `ChapterData`, contains multiple `PrefabsLessonLevel`.
- **Description:**
  - Encapsulates a lesson's metadata and list of levels.

### 13. `Prefabs.LessonLevel`

- **Connections:**
  - Used within `LessonData` as a prefab/template before being turned into runtime `LessonActivity.LessonLevel`.
- **Description:**
  - Raw level data from prefabs: includes answers, question, clue, and type.

### 14–18. Fragments for Levels

a. `MultipleChoiceFragment`

b. `FillInTheBlankFragment`

c. `CodePatternFragment`

- **Connections:**



## Javocado – Group 6 Documentation

- Created by LessonActivity, interacts with it and LessonLevel.

- **Description:**

- Show specific quiz types, manage user input and answer validation.

### d. OutOfSeedsFragment

- **Connections:**

- Created by LessonActivity, interacts with it.

- **Description:**

- Shown when the user runs out of seeds (energy).

### e. LessonDoneFragment

- **Connections:**

- Created by LessonActivity, accesses Memory.

- **Description:**

- Final screen after lesson completion.

## Advanced Concepts of Java:

## Javocado – Group 6

# Documentation

- **Object-Oriented Programming (OOP):** Use of classes, inheritance, encapsulation, and composition (e.g., inner classes, fragments, and data models).
- **Advanced Methods:** Overriding methods like `onCreate`, `onCreateView`, `onSaveInstanceState`, etc.
- **Inheritance:** Passing data between fragments and activities using arguments and bundles.
- **Custom Data Models:** Use of custom classes for chapters, lessons, and levels, including enums and nested classes.
- **Shared Preferences/State Management:** Managing persistent state via static methods and shared preferences (e.g., `MainActivity.Memory`).
- **UI Component Manipulation:** Dynamic interaction with UI elements (e.g., updating `TextView`, handling `Button` clicks).
- **Intent and Navigation:** Using `Intent` for activity navigation and controlling the back stack.

## Javocado – Group 6

# Documentation

- **Resource Management:** Accessing and managing resources (drawables, layouts, strings) programmatically.
- **Encapsulation and Access Modifiers:** Use of private fields and public methods for controlled access.
- **Collections and Generics:** Use of `List<T>` for managing groups of objects (e.g., lessons, options).

# Javocado – Group 6 Documentation

## Javocado – Group 6

<https://github.com/altxxr0/Javocado/>

### Member Contributions

#### 1. Jovohn Antoine Merick P. Faulve

- Majority of the Java Code, XML animations, Transitions to activity\_splash.xml to home.xml, Dropdown & Lessons Capsule.

#### 2. Gene Kyrvic T. Soleta

- Logo of Javocado, Color Pallete of Javocado, Levels Design in Javocado, Splash Screen Design, Javocado Level Complete Design.

#### 3. Rain Zeriel M. Fortaliza

- Dropdown Lesson Capsule Design, Home Layout Design, Side-Menu Design, Home Layout Gradient, Animations.

#### 4. Gian Colobong

- Home Layout Toolbar Design, Chapter Capsule Design, Side-Menu Gradient Design, Level Design in Javocado, Javocado Fonts.

#### 5. Jhayrald M. Tejada

- Present /w Contributions (The Login/Signup [Old]) Until 2<sup>nd</sup> Quarter 2<sup>nd</sup> Term, Absent on the 1<sup>st</sup> of 2<sup>nd</sup> Quarter 2<sup>nd</sup> Term