

# A Brief Introduction to HAnS Plugin

# HAnS Overview

- Helping Annotate Software (HAnS)
- Plugin for IntelliJ IDEA
- Designed to simplify the process of recording and managing feature locations
- Offers developers seamless support for annotating software assets with features
- Facilitates better organization, collaboration, and maintenance of software systems



# What is a feature?

## **Feature Definition:**

- Used to describe a certain functionality in a software system

Examples:

- Payment processing in an e-commerce website
- Notification system in an email client

## **Manual techniques for locating features within a codebase:**

- Code Analysis
- Team Consultation
- Reviewing Documentation

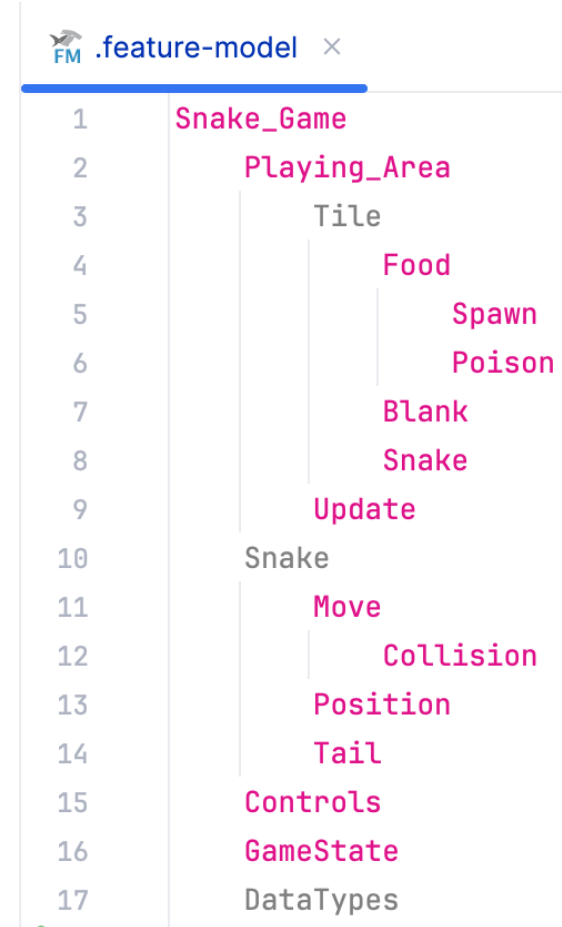
## **Disadvantages:**

- Time-consuming > require significant effort to sift through code
- Error prone > risk of overlooking important details
- Demand a high level of domain knowledge

# Feature Annotations

## Documentation:

- New features are documented in a .feature-model file
- Feature-model file holds information of all the features within the project and their hierarchical relations



# Feature Annotation

## Supports three types of feature annotations:

### 1. Comment-based Code Annotations

- Using `&begin[Feature]` and `&end[Feature]` keywords to map multiple lines to the same feature(s)

```
// &begin[Poison]
foodPosition = new Tuple( x: Window.getWindowHeight() - 3, y: Window.getWindowWidth() - 3);
spawnFood(poisonPosition); // &line[Poison]
// &end[Poison]
```

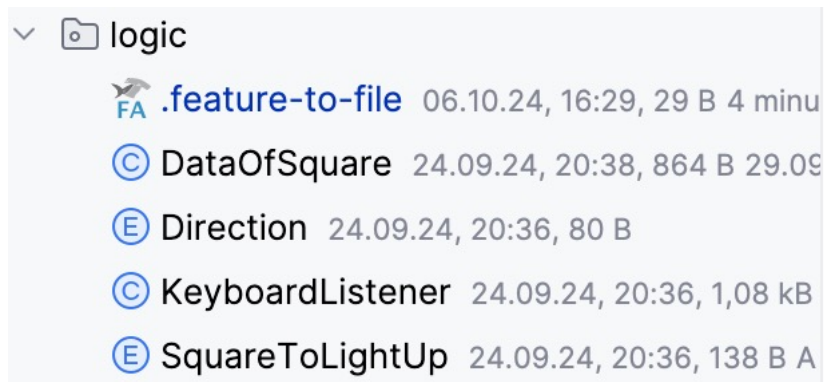
- Using `&line[Feature]` keyword to map single line to the same feature(s)

```
private Tuple foodPosition; // &line[Food]
5 usages
private Tuple poisonPosition; // &line[Poison]
```

# Feature Annotation

## 2. File Annotations

- Create single file named .feature-to-file in the folder containing the file(s)



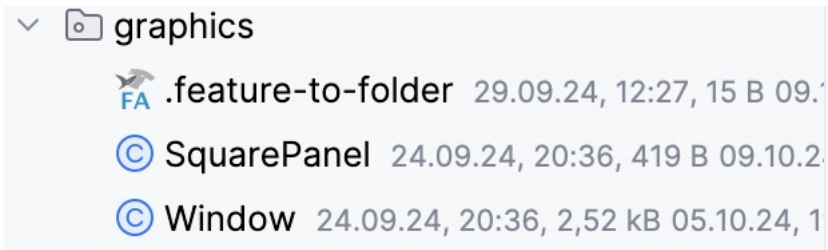
- Map file(s) to feature(s) (The file(s) in one line map to the feature(s) specified in the next line)



# Feature Annotation

## 3. Folder Annotation

- Create single file named .feature-to-folder in the folder you would like to map to certain feature(s)



- Write feature name(s) you'd like to map to the entire folder

