**Games**

Defends against an army of killer robots

<https://github.com/SudheeraAbhisheka/Defends-against-an-army-of-killer-robots>

<https://youtu.be/Eyj7Smcmf74>

The game is played on a resizable grid, which is initially empty except for a single square at the centre, called the “citadel”. Player must defend the citadel from an army of robots. Robots are generated at the four corner squares at the grid. The moving times of robots are different from one to each. Player can only build limited number of walls only at once. After appeared one wall, the next wall won’t appear in the next ten seconds.

* Java Completable-Futures
* Java Swing

Collect the keys in the maze

<https://github.com/SudheeraAbhisheka/Collect-the-keys-in-the-maze>

<https://youtu.be/Eyj7Smcmf74>

Each door has one of six colours (1–6) and can be “opened” by a key of a corresponding colour. Keys can be found in certain grid squares around the maze.

* Java
* Strategy pattern & Decorator pattern

Player, goal, and snake

<https://github.com/SudheeraAbhisheka/Snake-player-and-goal>

<https://youtu.be/LiE2RkhYMXs>

This snake will gradually go closer to bite the player. Once the player and the snake is on the same location, the player loses the game. Pressing ‘u’ allows the player to undo the steps taken when the player moves.

* Reading the metadata from a text file
* Language C89
* Fixed memory leaks
* Generic Linked List

**Simulators**

A calendar application that can connect 3rd party plugins

<https://github.com/SudheeraAbhisheka/Calendar_with_plugins>

<https://www.youtube.com/watch?v=CWG8GGlgN4Y>

‘Repeat’ event plugin

This plugin must create an event with the given details and also another event **N** days afterwards, and another event **N** days after that, and so on, until a year after **startDate**.

‘Notify’ event plugin

Whenever an event begins whose title contains the given text, the plugin should output the complete event details to the user.

* Internationalisation
* ‘UTF-32 and UTF-16’, ‘.cal’ files reading.
* javaCC

Help Emergency service responses in Natural disasters

<https://github.com/SudheeraAbhisheka/Help-Emergency-service-responses-in-Natural-disasters>

* Strategy pattern
* Decorator pattern
* Observer pattern
* State pattern
* Dependency injection

Generate, display, and rank the number of roots in a structure like Snakes and Ladders

<https://github.com/SudheeraAbhisheka/Generate-display-and-rank-the-number-of-roots-in-a-structure-like-Snakes-and-Ladders>

* Weighted
* directed graphs
* Binary search tree
* Heaps
* Manual linked lists

Film festivals(My SQL)

<https://github.com/SudheeraAbhisheka/Film-Festivals>

**Android applications**

Calendar with event notifications

<https://github.com/SudheeraAbhisheka/CalendarWithEvents>