

# Game Center Management System Documentation

## 1. Project Purpose and Functionality

The Game Center Management System is designed to help users find game centers and cabinets efficiently. It supports **listing game centers, searching cabinets, and managing cabinet inventory**

Key functionalities include:

- Listing all game centers and their details.
- Searching for game centers by cabinet names.
- Viewing details of available cabinets.
- Adding cabinets to game centers.

## 2. Explanation of Classes and Methods

### Cabinet Class

The `Cabinet` class represents a single arcade cabinet. It contains the following fields:

- `name`, `description`, `manufacturer`, `version`, `genre`, `status`, and `pricePerPlay`.

The subclass `Maimai`, `Chunithm` and `Ongeki` represent a specific Arcade game cabinet.

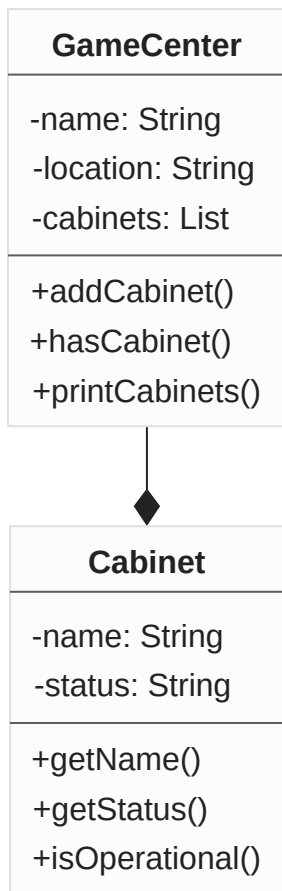
### Methods include:

- getters and setters for each field.
- `isOperational()` : Checks if the cabinet is operational.
- `toString()` : Returns a formatted string representation of the cabinet details.

### GameCenter Class

The `GameCenter` class manages a list of cabinets within a game center. It contains:

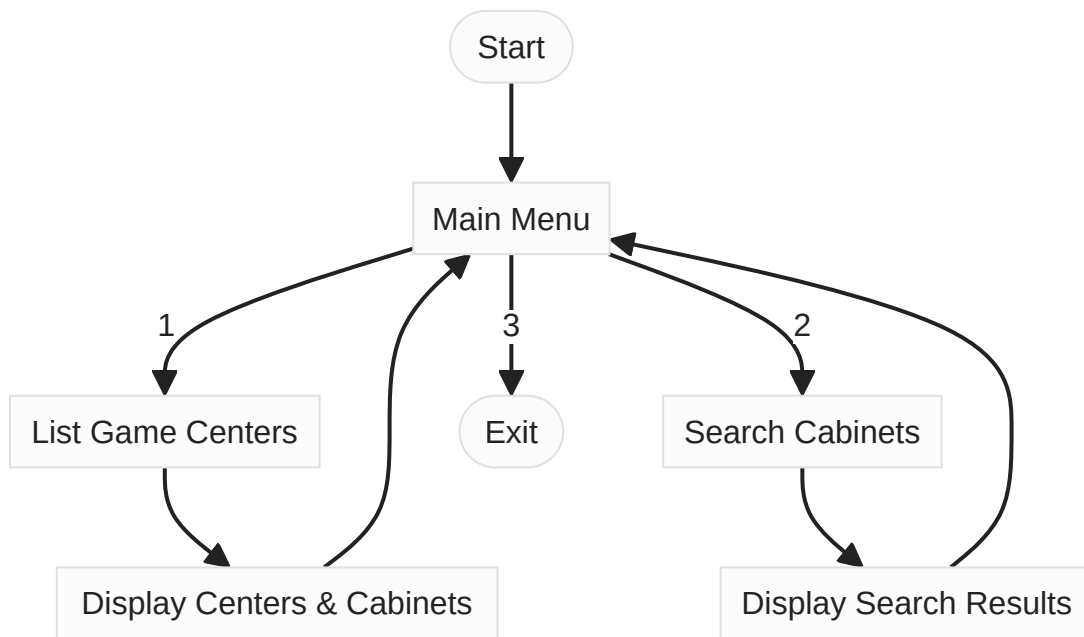
- Fields: `name`, `location`, and `cabinets` (a list of lists of cabinets).
- Methods:
  - `addCabinet(Cabinet cabinet, int quantity)` : Adds a specified quantity of a cabinet.
  - `hasCabinet(String cabinetName)` : Checks if a cabinet exists in the game center.
  - `printCabinets()` : Prints all cabinets in the game center.



## Main Class

The `Main` class implements the Command-Line Interface for user interaction. It includes:

- `initializeGameCenters()` : Sets up game centers and cabinets.
- `listGameCenters(List<GameCenter> gameCenters)` : Displays a list of game centers.
- `searchGameCenterByCabinet(List<GameCenter> gameCenters)` : Finds game centers by cabinet names.



### 3. Future Plans

#### Future features include:

1. **Serialization:** Store game center and cabinet data in a file or database for persistence.
2. **Graphical User Interface (GUI):** Create a user-friendly interface for managing game centers and cabinets.
3. **User Feedback:** Allow users to comment on and verify the status of game centers and cabinets