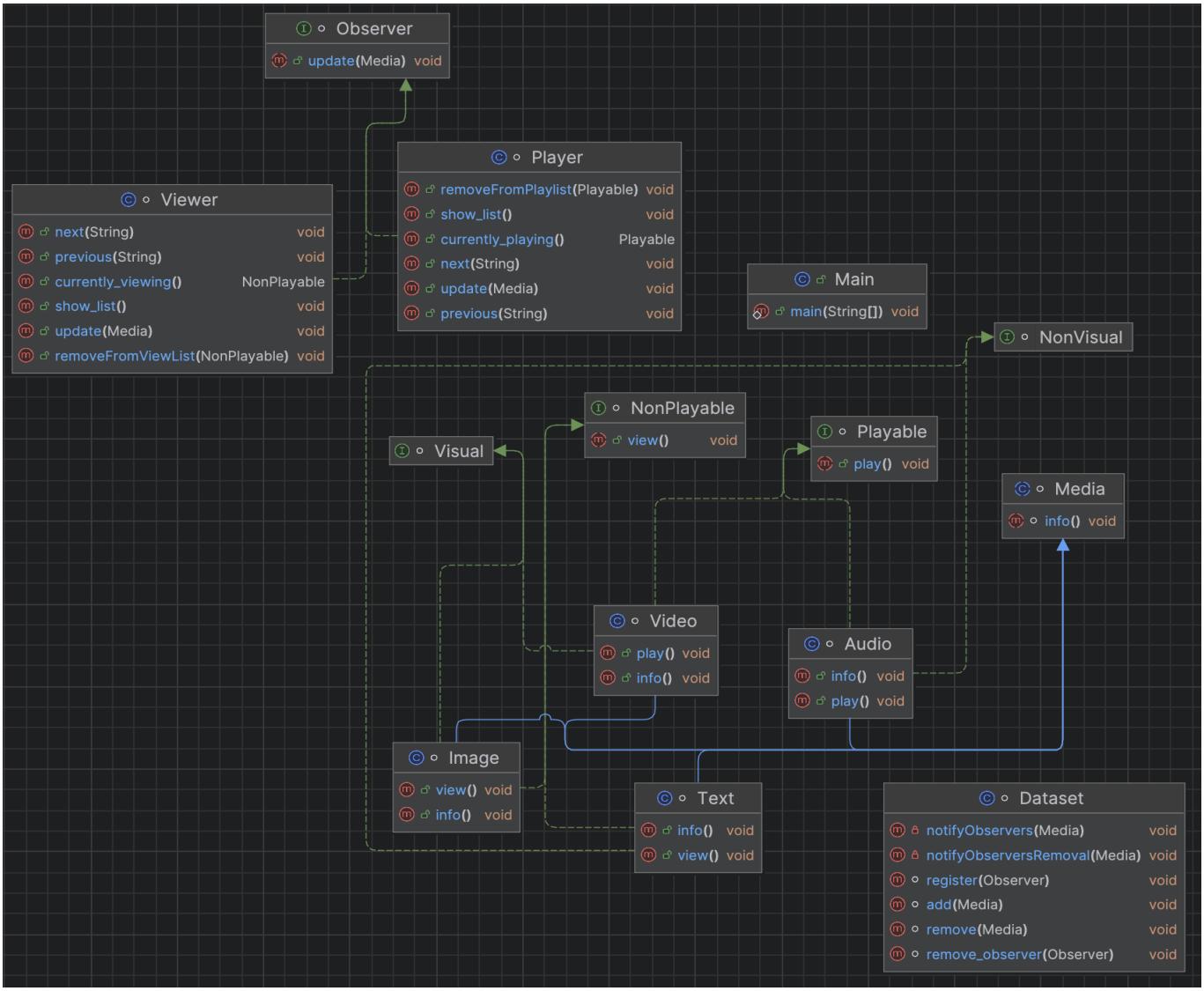
Observer
update(Media) void
Player
removeFromPlaylist(Playable) void
show_list() void
currently_playing() Playable
next(String) void
update(Media) void
previous(String) void
Viewer
next(String) void
previous(String) void
currently_viewing() NonPlayable
show_list() void
update(Media) void
removeFromViewList(NonPlayable) void
Main
main(String[]) void
NonVisual
NonPlayable
view() void
Visual
Playable
play() void
Media
info() void
Video
play() void
info() void
Audio
info() void
play() void
Image
view() void
info() void
Text
info() void
view() void
Dataset
notifyObservers(Media) void
notifyObserversRemoval(Media) void
register(Observer) void
add(Media) void
remove(Media) void
remove_observer(Observer) void

Media Management System with Observer Pattern

Core Structure

1. **Media (Abstract Class):**
    - The foundation of the system.
    - Represents any media object and holds common attributes like *name* and *otherInfo*.
    - Declares an abstract `info()` method, which derived classes must implement to display their specific details.
2. **Interfaces:**
    - **Playable:** Specifies the `play()` method for audio and video.
    - **NonPlayable:** Specifies the `view()` method for images and text.
    - **Visual** and **NonVisual:** Categorize media based on whether they have a visual component.
3. **Derived Classes:**
    - **Image**, **Audio**, **Video**, **Text:**
        - Extend the `Media` class to represent specific media types.
        - Implement relevant interfaces based on their capabilities.
        - Provide concrete implementations for `info()`, `play()`, and `view()` methods.

Observer Pattern

- **Observer (Interface):** Defines the `update(Media media)` method, which is called when the observed object (the dataset) changes.
- **Player**, **Viewer** (Classes):
    - Implement the `Observer` interface.
    - Maintain separate lists for playable (`playlist`) and non-playable (`viewlist`) media.
    - The `update()` method is triggered when new media is added to the dataset, allowing the `Player`/`Viewer` to add it to their respective lists.
    - Offer functionalities like `show_list()`, `currently_playing()`/`currently_viewing()`, `next()`, and `previous()` to manage and navigate the media lists.
- **Dataset (Class):**
    - The central hub for managing the collection of media items.
    - Holds a list of `Media` objects and a list of `Observer` objects.
    - The `add()` method adds new media and notifies all registered observers.
    - The `remove()` method removes media and handles notifying observers accordingly.