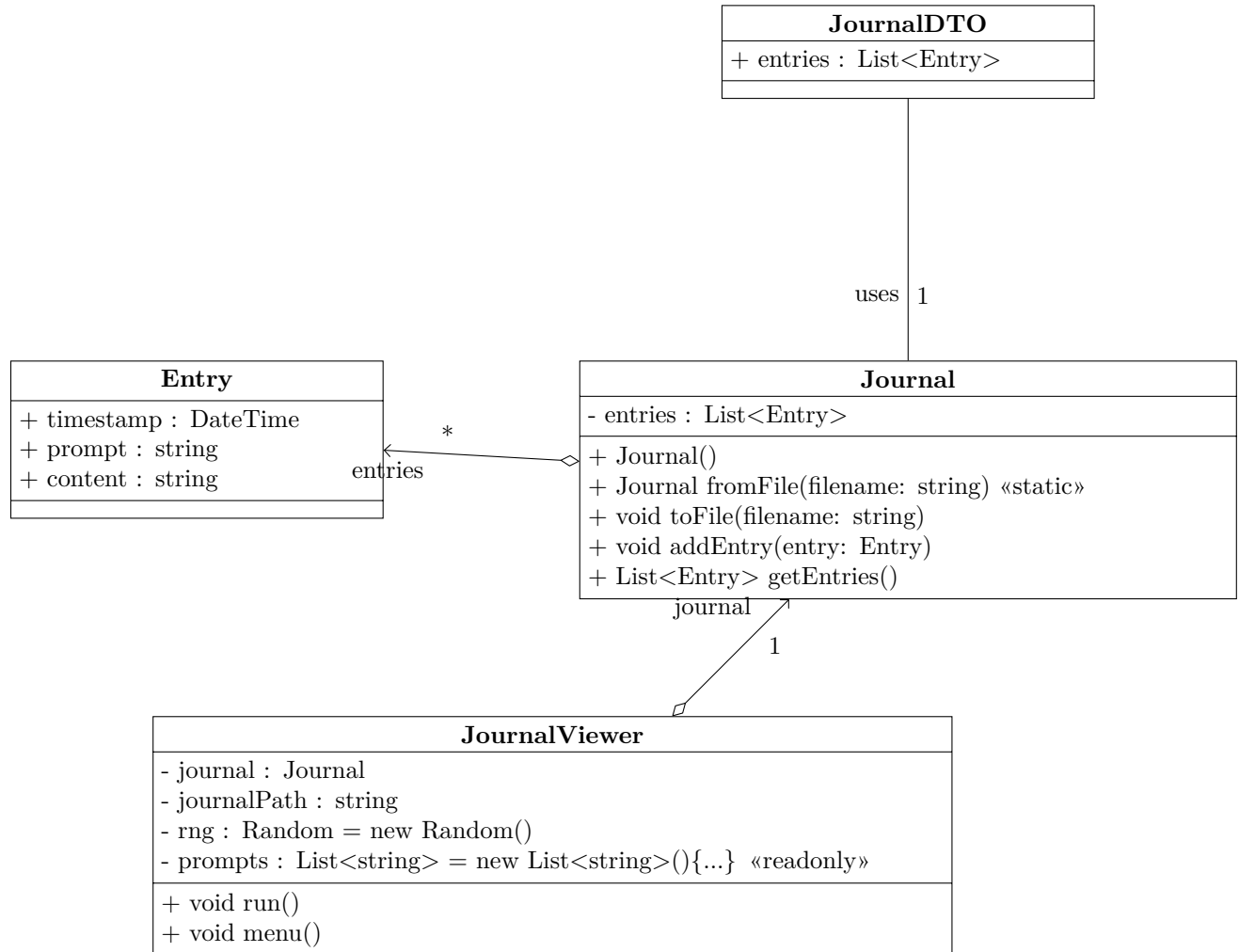


# CSE 210 Develop 02 Project Design

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## 1 Class Diagram



## 2 Program Flow

### 2.1 Menu

An instance of the `JournalViewer` class will handle the menu loop. User options will be displayed on the console, with input read from `stdin`. The supported actions are:

1. New entry (Section 2.2)
2. Load journal (Section 2.3)

3. Save journal (Section 2.3)
4. Display all entries (Section 2.4)
5. Exit program (Section 2.5)

Users will give input as strings.

## 2.2 Creating a new entry

When creating a new entry, users will be shown a random prompt (handled by the `JournalViewer` class). They will then be prompted by the program to enter freeform text on the command line. Two blank lines (three newline characters) in a row will signal the end of an entry.

When the user has finished entering their response, the information will be stored in a new instance of `Entry` (timestamped with current UTC time via the `DateTime.UtcNow` field) and added to the `Journal` instance's list of entries.

## 2.3 Saving/Loading

The journal entries will be stored on disk as JSON. Serialization will transform the list of entries in the `Journal` class to a JSON document, which will be written to disk. Deserialization will occur in the reverse order. This will be more complex due to the all-public nature of JSON deserialization in C#, so a `JournalDTO` object will be loaded from the JSON on disk, and will be copied into private memory by the `Journal` class.

## 2.4 Display

Display is handled in a simple for loop that iterates through the journal entries, printing timestamps, prompts, and content for each entry in turn.

## 2.5 Exit

A user input of "exit" will exit the menu loop and terminate the program. The journal entries will *not* be defensively saved.