Q1. Imagine adding the following functionality to the **SlidingPuzzleApp**, the case study completed in the Individual Project module.

*Upon solving the puzzle, a proud user can print out the sequence of moves that led to the solution*

Write a use case that captures this functionality using the structured template shown in class.

Q2. Given the following application domain, design a UML class diagram (including attributes and associations) for the following context shown by example:

*A Discord server has a name and a number of participants. Each participant has a name, an optional string description and a status (either Online, Idle, Do Not Disturb or Invisible). The server contains a number of named channels. A channel keeps track of a sequence of posts. Each post contains a text message by a participant at a given date.*

*Note: You can assume there is a class Date that records dates like “11/3/2022 9:30 PM”*

**You must show attributes and relationships between classes. Do not show methods or constructors.**

*Q3. Given the following problem, show the UML class diagram for the appropriate React* ***entity****,* ***boundary*** *and* ***controller*** *classes that you would use. This application has two use cases:*

* *Clear Sum*
* *Add to Sum*

*There is no need to show relationships (i.e., arrows) between the classes.*

Shape

Description automatically generated with medium confidence

*Use proper UML class diagrams to capture the attributes and methods.*