You have been tasked with creating Blizzard Entertainment's next epic game: Hearthstone!

Rules of the game:

- 1. Each player starts with 1 mana crystal, after every round a player is rewarded with an additional mana crystal up to a maximum of 10, mana crystals regenerate per turn. For example, round 1 each player has 1 mana crystal to spend, round 2 they have 2 to spend, and so on up to a maximum of 10.
- 2. A player deck consists of the following 30 cards:
 - a. 10 cards that deal 1 damage and cost 1 mana.
 - b. 4 cards that deal 2 damage and cost 2 mana.
 - c. 2 cards that deal 3 damage and cost 3 mana.
 - d. 2 cards that deal 4 damage and cost 4 mana.
 - e. 2 card that deals 5 damage and cost 5 mana.
 - f. 5 cards that heal for 1 hit point and cost 1 mana.
 - g. 2 cards that heal for 2 hit points and cost 2 mana.
 - h. 2 cards that deal 1 damage and cost 1 mana, in addition the player draws another card.
 - i. 1 legendary card that deals 4 damage and you get 1 extra mana crystal that turn, costs 5 mana and outputs the epic message "You will never defeat me!" to the UI.
- 3. Each player has their own distinct deck.
- 4. Each player starts with 4 random cards and 30 hit points.
- 5. A player can play as many cards as they have mana for, there is no "board" and once a card is played it is discarded.
- 6. A player does not need to spend all their mana every turn.
- 7. You can assume damage cards only damage the opponent and heal cards only heal you.
- 8. At the beginning of a turn a player draws another card from their deck.
- 9. If all 30 cards from the player's deck have been drawn, the player is deducted 1 hit point at the start of their turn.
- 10. The game is over when one player reaches 0 hit points.
- 11. There are no time limits per turn.

Development Guidelines

- Although this is an academic exercise, this should be considered an enterprise application. Common development techniques and patterns should be considered (Object oriented, scalability, maintainability, testability, portability, etc.).
- The application should try to embrace as many of the 8 Blizzard <u>core values</u> as possible. (Hint: We are part of Quality Assurance so Commit to Quality is very important!)
- This is an alpha version, your design should consider future card mechanics and other balancing tweaks but overall the basic gameplay will stay the same.
- The alpha version is Player vs. Player (No AI) on a single machine.

Submission Requirements

This is meant to be a solo exercise and should take you between 4 to 6 hours to complete, a working application in 6 hours or less is the mandate. Please email a zipped, ready-to-build console application (exclude the .exe from your email), the amount of time you spent on the development and a brief explanation of your design decisions and workflow. Please do not upload this to a public repository like GitHub.

A simple command-line interface is completely acceptable that lists out pertinent information per turn. Do not spend time on a complex user interface, focus on building a solid architectural foundation for the application. This exercise is not meant to implement every feature of the actual game, only the above rules need to be satisfied.