



Thank you for applying to our **Software Engineer I position**! As part of the hiring process, we would like you to complete the following assignment.

The goal of this exercise is to understand how you think and learn more about your coding and problem-solving skills.

We highly recommend you to articulate and justify your decisions, you can create diagrams to support your explanations and document all you think is relevant.

## Homework Eventbrite

Here at Eventbrite we are pretty fond of board games, and one of the best 1 versus 1 board games is called [Warchest](#), so how about implementing a simplified version of this board game called Warchest-Lite.

Warchest is a game about controlling zones and making strategies, just like Chess or Shōgi. The game is played with a 9x9 board with 9 types of pieces and the goal of the game is to have 6 controlled zones before your opponent. For this matter, you will place and move your units and attack your opponent's units.

Bear in mind that in order to simplify this exercise a little bit, we've changed the rules and torn down a bit of the game so it doesn't get too long.

Please, review the following manual of rules and how to play in the following manual we created beforehand: [Warchest-Lite Manual.pdf](#)

You can use any technology that you like. A graphic interface is not required and you can do a terminal-like implementation of the game.

### **As this is a complex game, let's scale down the exercise:**

- Instead of 6 control zones, make it 4 and start with only 1 controlled zone per player. So, when the game starts, each player has a controlled zone and there are 4 free zones. They need to control 3 more zones in order to win (more on the winning conditions in the "How to play" section below).
- Instead of a 9x9 board, you can scale down to a 5x5
- Instead of 9 unit types, you can do 4 unit types (2 per player)

**Note:** You can use a 9x9 board, if you do that, you will need 8 unit types and 6 control zones.



## Requirements

- Use English to document. Create a README with any information you consider necessary
- At least 4 types out of 8 unit types (not counting the Royal unit)
- Taking the initiative for the next round
- Unit movement
- Attack and deletion of units from the game
- Recruiting units
- Placing units on the board
- Winning conditions
- Create a public github repository and share the link

## We will value

- Meet all the requirements
- Maintainability of the code
- OOP/OOD solutions
- Testing
- Meaningful commits and Pull Requests with description

## Bonus points

- Extra documentation: flow diagrams, documentation explaining your thought process
- Show high scores (how many games a player has won and when they have won, it can be fake data) from a database before the start of the game ordered by from most recent. A database should be composed by: Player name, Number of victories, Date
  - e.g.:
    - "Antonio", 10, 2022-05-20 12:03:15
    - "Laura", 5, 2023-02-19 11:51:03
    - "Ramiro", 6, 2023-02-19 10:12:06

Example of execution: [Warchest-Lite Eventbrite.mp4](#)



## Duration

The estimated effort for this exercise is **3 days**.

Once you finish the exercise, please send it to [warchest@eventbrite.com](mailto:warchest@eventbrite.com). We will review it carefully and get back to you regarding the next steps in the process.

Please don't hesitate to contact us at [warchest@eventbrite.com](mailto:warchest@eventbrite.com) for further information if you have any doubts. You can also provide your [feedback](#), it's very important for us to iterate and improve!

Thank you!

**Eventbrite**