

Warmup Exercise - Team and Technology DeRisk

- Due Sunday by 11:59pm
- Points 6
- Available Apr 12 at 12am - Apr 21 at 11:59pm

In this assignment, we are going to perform some **exploratory** programming specifically so that we "derisk" potential problems in the final project. We are doing a small warm-up exercise to code a playing card widget. You can work through these ideas in increasing order of complexity:

1. Card Deck and Playing Card Web Components complete with animation of flip and/or shuffle (HTML, CSS, and very light JS)
2. Dealing with the deck, complete with an ability to pull the cards one or multiple at a time and state management of the deck (more JS + some simple web APIs)
3. A simple game, either Solitaire or Black Jack Game, against an algorithmic dealer. No multiplayer effort here or network work allowed. The dealer may have a brain-dead, random, and correct mode for fun. If you do BlackJack you need state for money to be tracked. (the most JS)

You may not jump steps. You have to be able to do #1 properly before #2, and so on. Your card and deck widgets should use **standard HTML, CSS, and JavaScript** and **should not use libraries or frameworks**, as they aren't needed. Components will be built using Web Components which are built-in to browsers. State management can be handled via the localStorage API for now. You must also use GitHub to do this. We must see multiple pushes to your repository and some uses of issues to allocate work.

The amount of polish and presentation in the warm-up is up to you; depending on how your efforts progress, you can make it much more visual with animations or even add in sounds or voice. Most importantly, you should **focus the most on code quality** and other aspects of a well-engineered piece of code. After your mini-sprint, you demonstrate your component(s) or app in a short video uploaded on YouTube (under 3 minutes), access to the working app for your TA mentor, and a SWOT analysis of your learnings from the exercise.

The expected outcomes of this exercise are:

1. Implementation of at least one of the steps. For this create a new repository in your Github Organization called **warmup-exercise**.
 1. **NOTE:** If you are attempting multiple widgets, keep them in separate folders in the repo mentioned above

2. Review of the process followed by a SWOT analysis (Strength, Weakness, Opportunity, Threat) on how it went on the aspects team, tech, and tool and a brief summary of your learning.

For the submission on **GRADESCOPE**, you need to submit a pdf containing:

- Team number
- Team name
- Github Repo Link
- Youtube Link
- Full SWOT analysis

Also upload this PDF in your main GitHub repository in the directory admin/adr

The top 5 teams in terms of code and analysis will receive some bonus points, and class recognition.

NOTE: You may consider breaking your team into sub-teams or any other play style that makes sense for you to exercise your team and reveal how you work together.