xDurak

Usability Testing

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Ⅰ. Research Outline

Objective:

How might we streamline the card game experience so that game actions are clear and accessible?

Participants:

I recruited a total of 10 participants familiar with the rules of Durak to access whether the game functions and display were true to the game. Participants ranged in age and gender. The average age of the participant pool was 36 years old. It was a strategic decision to reflect the research I found on mobile gaming demographics. Of the ten participants, 2 were female and 8 were male.

👱🏼 Participant #1   🧑🏿 Participant #6

🧑🏿 Participant #2   👩🏻 Participant #7

🧑🏻 Participant #3   🧔🏻 Participant #8

🧔🏽 Participant #4   🧑🏻 Participant #9

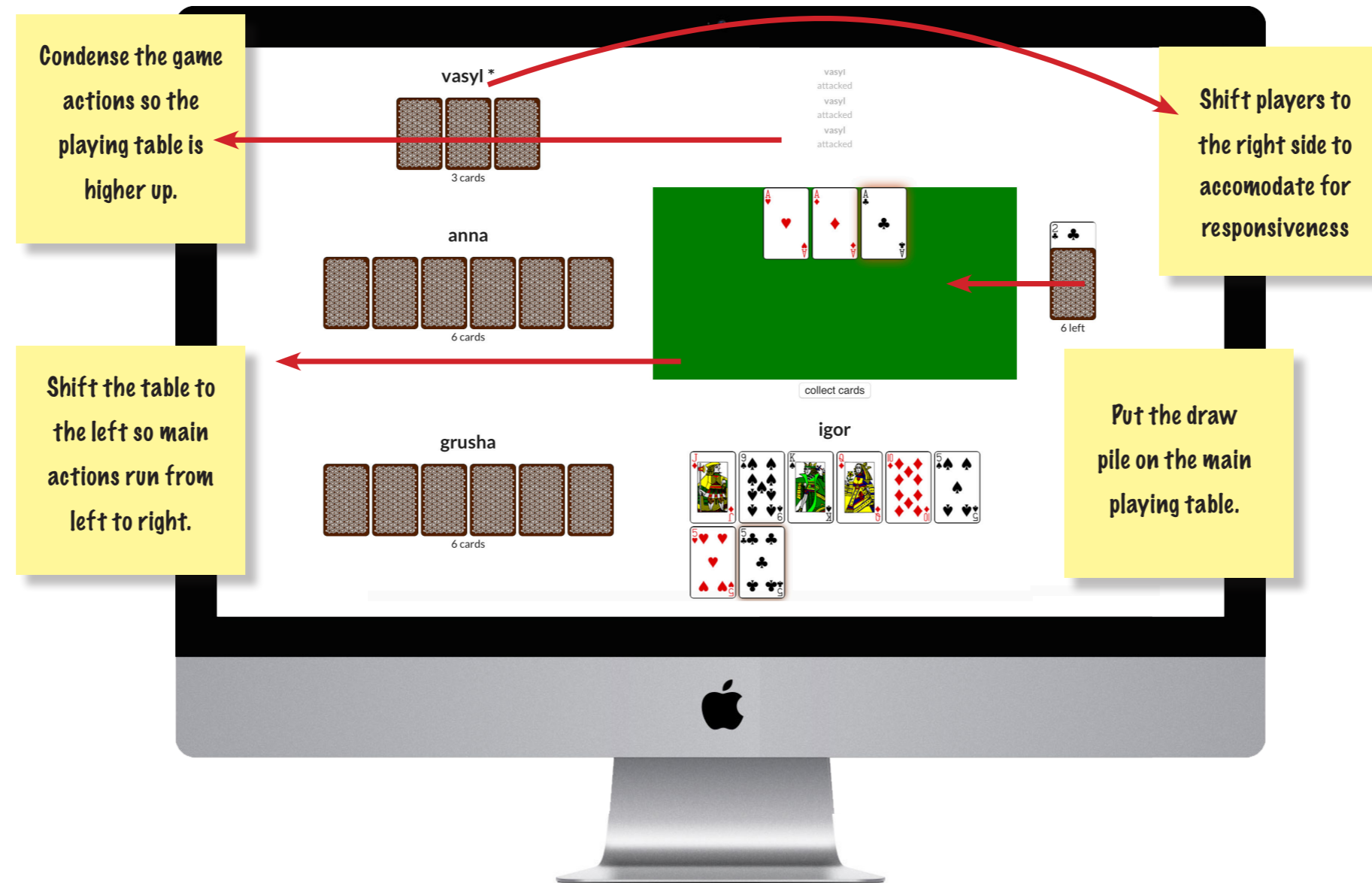🧑🏻 Participant #5   👱🏼‍♀️ Participant #10

Process:

For each round of testing, I asked 3 participants to interact with an iteration of the product. The usability testing revealed design flaws and uncovered opportunities to improve the overall user experience.
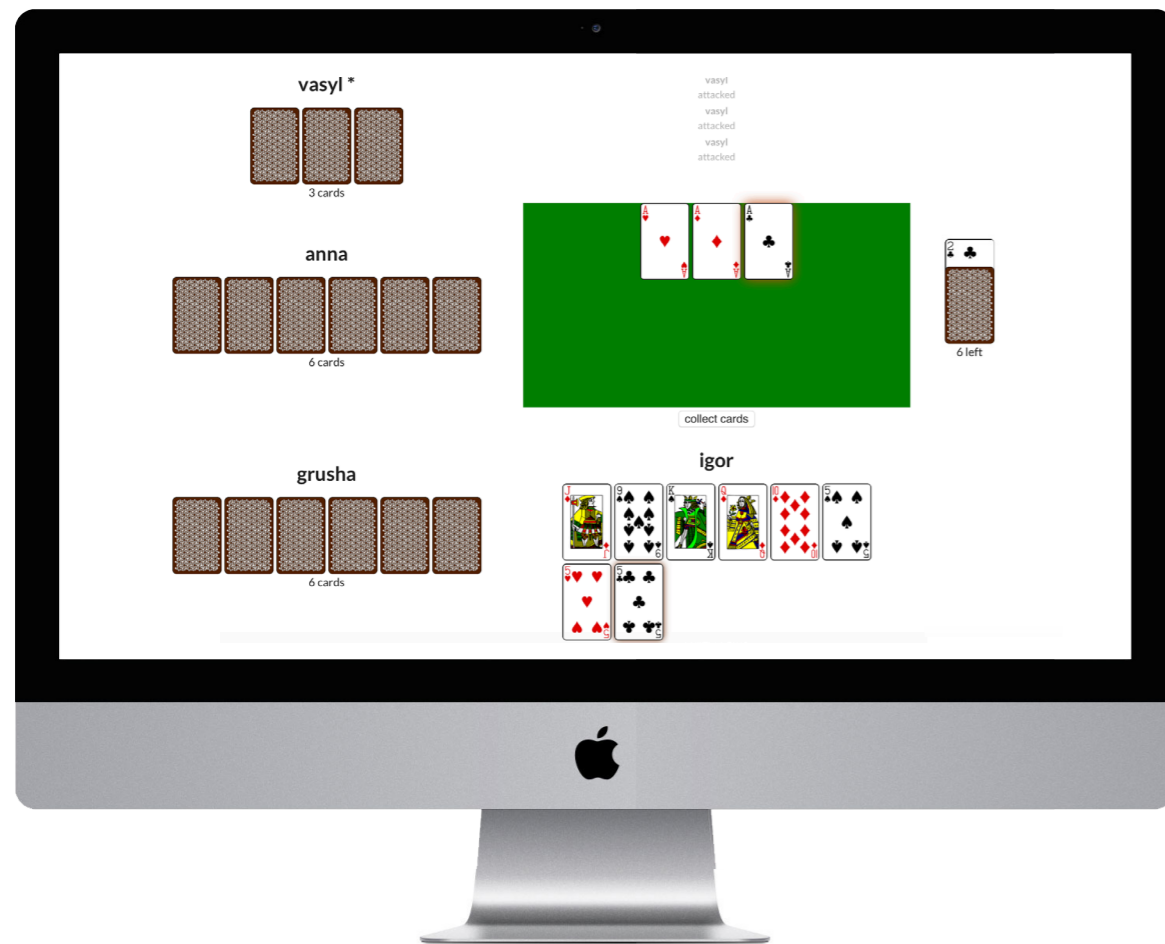
II. Information Architecture

Improving the IA:

I worked with the client to improve the information architecture of the desktop game to set a foundation for a clear and responsive interface.
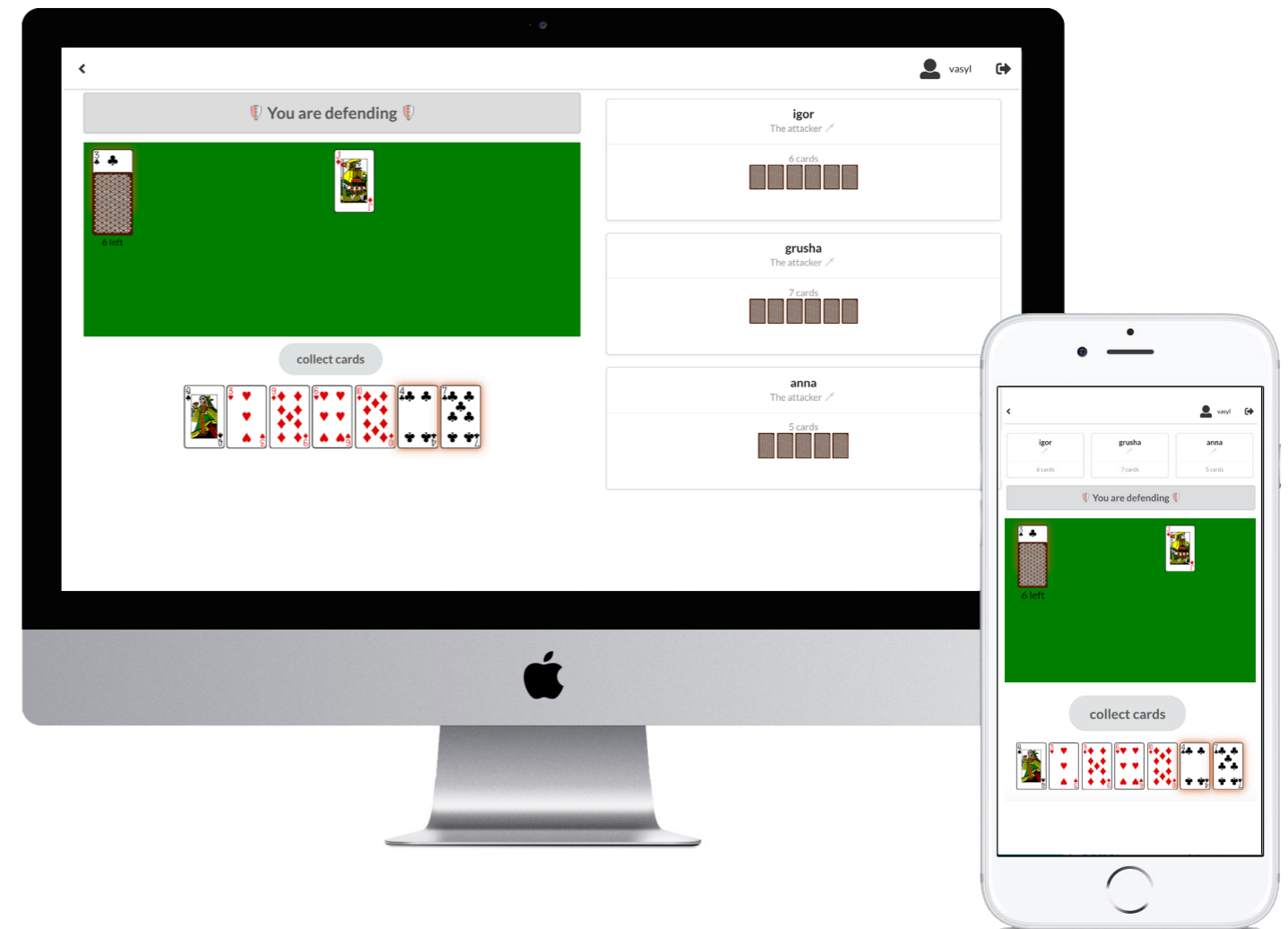

Condense the game actions so the playing table is higher up.

Shift players to the right side to accomodate for responsiveness

Shift the table to the left so main actions run from left to right.

Put the draw pile on the main playing table.

II. Information Architecture

Before:

After:

Original Design

Edited Design with Mobile Interface

III. Usability Testing

Introduction:

Round 1

Participants:

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Pain Points:

01: Emphasize Player Roles

02: Card Sorting

Round 2

Participants:

😀😀😀

Pain Points:

01: Card Overflow

02: Clarify Order

03: Displaying Player Actions

Round 3

Participants:

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Pain Points:

01: Optimize Card View
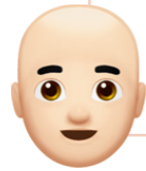
02: Card Interaction

03: Simply Navigation
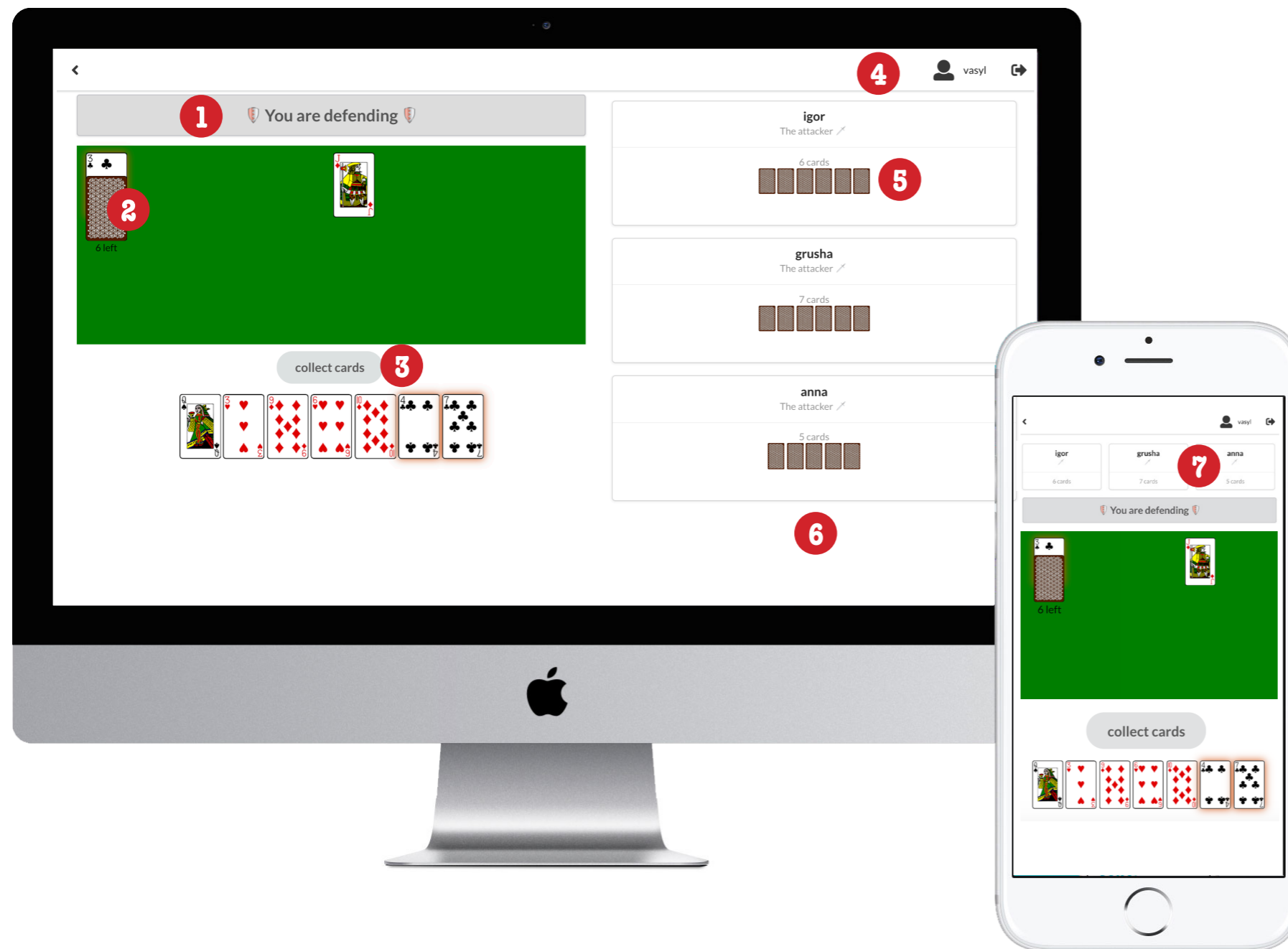
Round 4

Participants:

😀😀😀

Pain Points:

01: Explain Card Interactions

02: Differentiate Trump Cards

Round 1

> " **It would be nice to sort the hand by suit or trump.** "

Version 1 Updates:

1 Static banner on top shows current game actions

2 Card deck is within the main table

3 Action buttons are larger

4 Navigation bar added so users can go back to the main page and log out

5 Player's hands are shrunk down

6 Players displayed on the right to accommodate responsive design

7 On mobile view, the players are displayed on top of the screen

Emphasize Player Roles

Durak has players adopt different roles throughout the game, so it is important to emphasize these roles to facilitate the game flow.
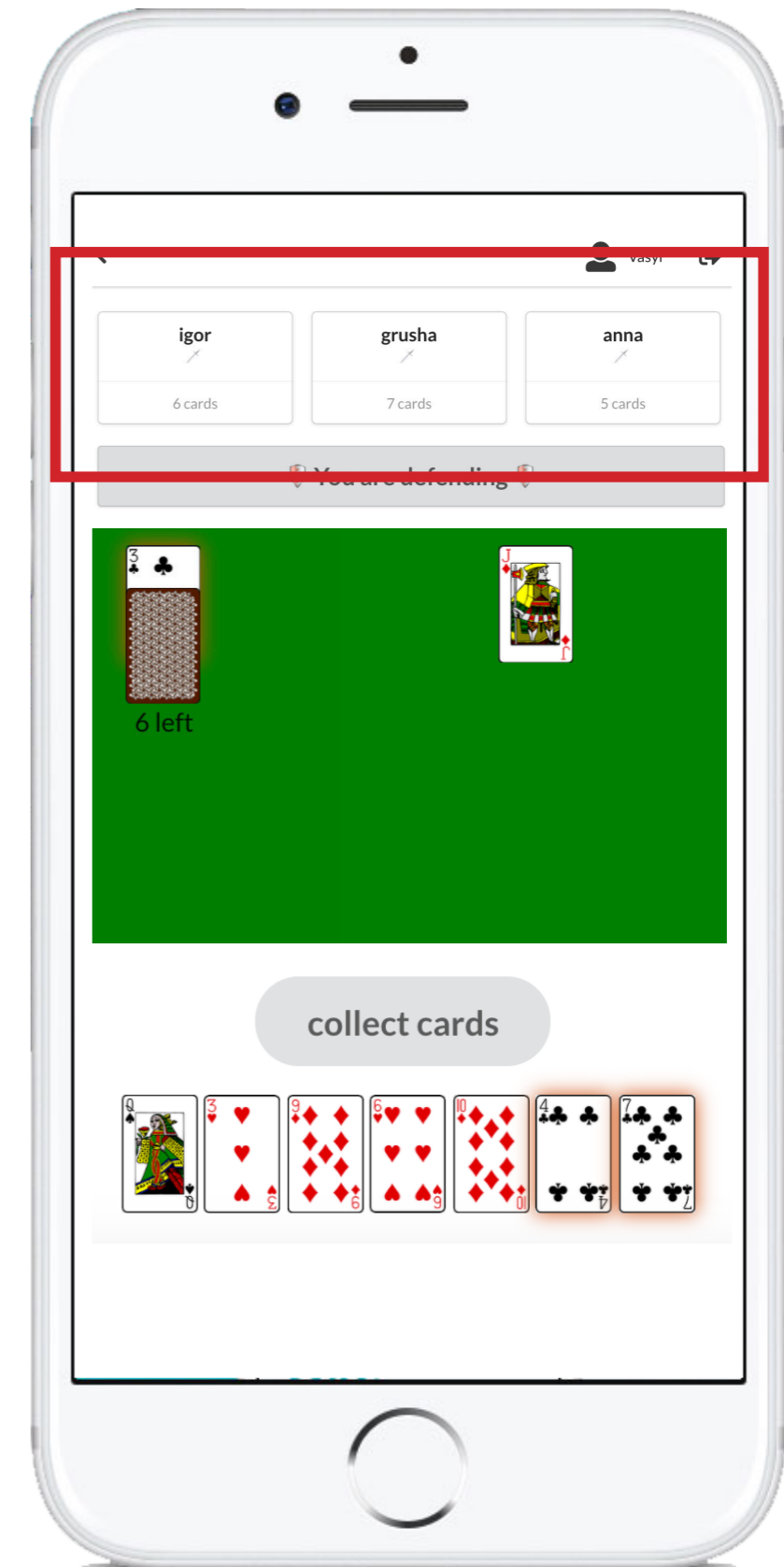
I chose to create icons representing the three roles players adopt throughout the game:

Lead Attacker

The lead attacker starts the round by presenting a card/attack to the defender.

Defender

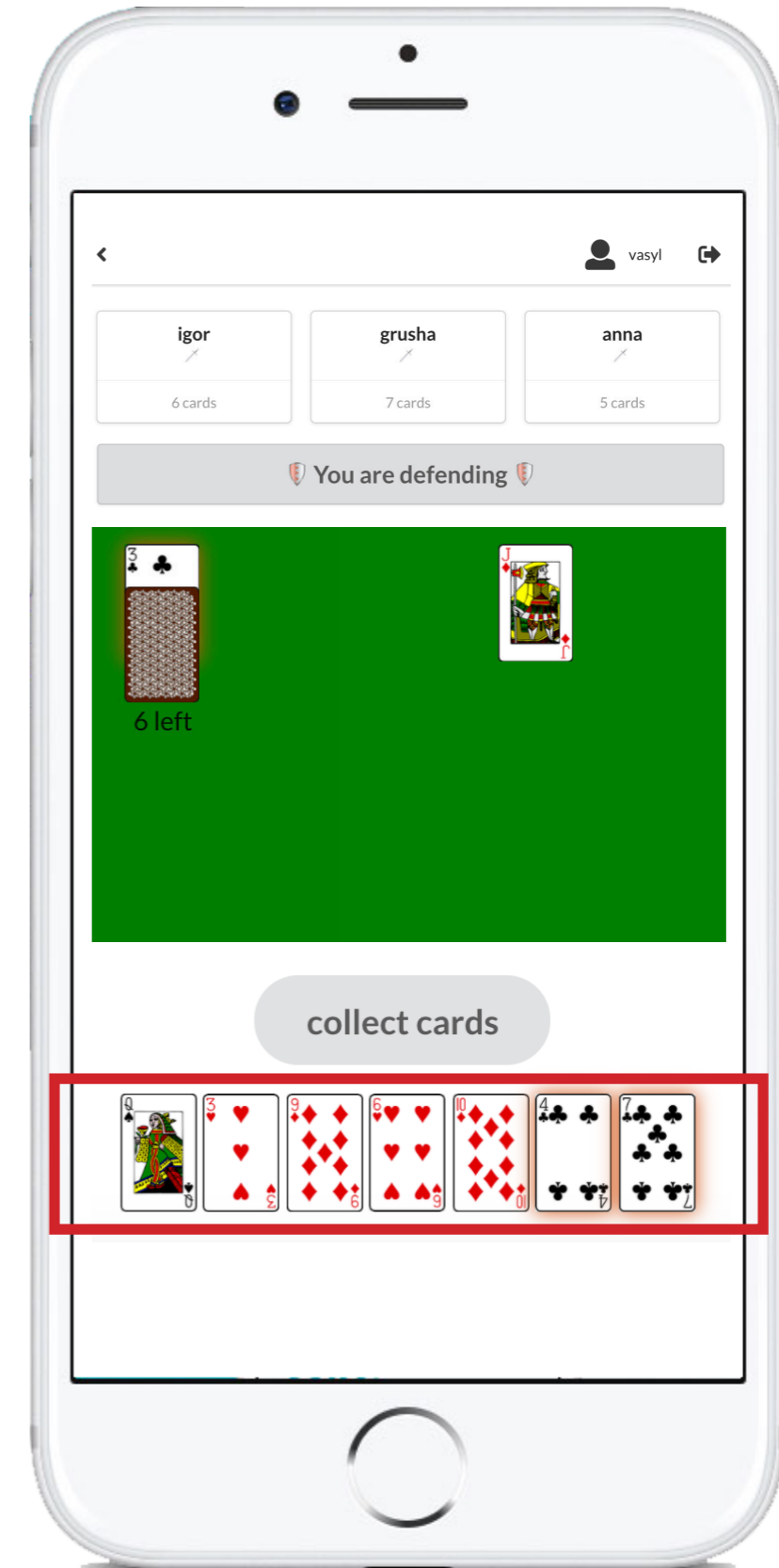A defender has to beat the cards placed on the table with cards from his hand.

Attacker

Once the lead attacker puts down a card, the other attackers continue the attacks by playing cards of the same rank on the table.
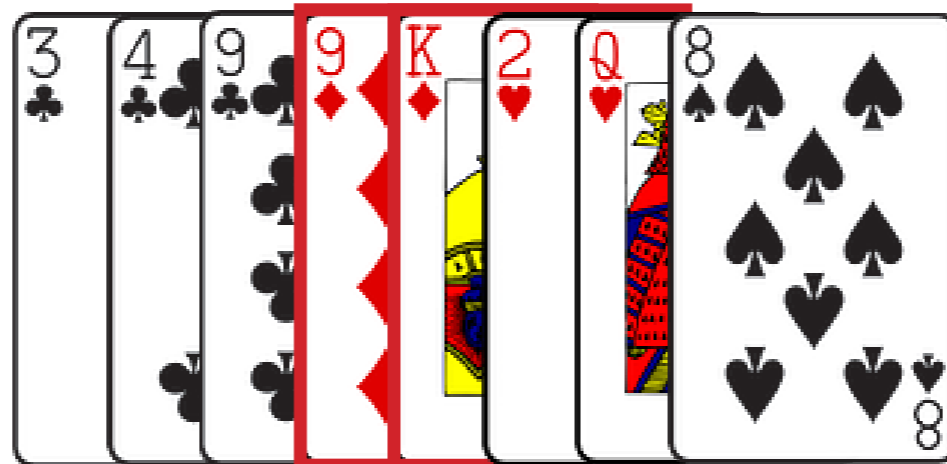
Card Sorting

Users can make better game decisions when they can organize their hand.

After conducting card sorting exercises with users, I concluded that there were three popular card sorting schemes. I added a button that allows players to quickly sort by these three schemes:
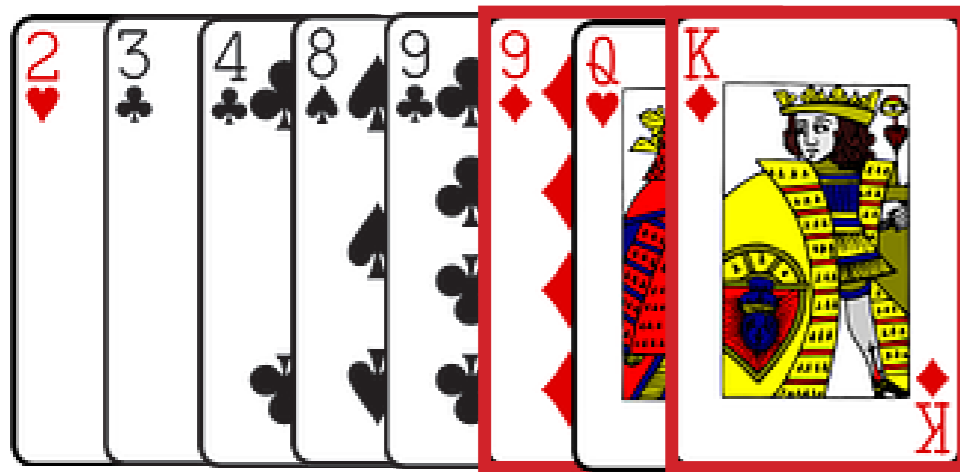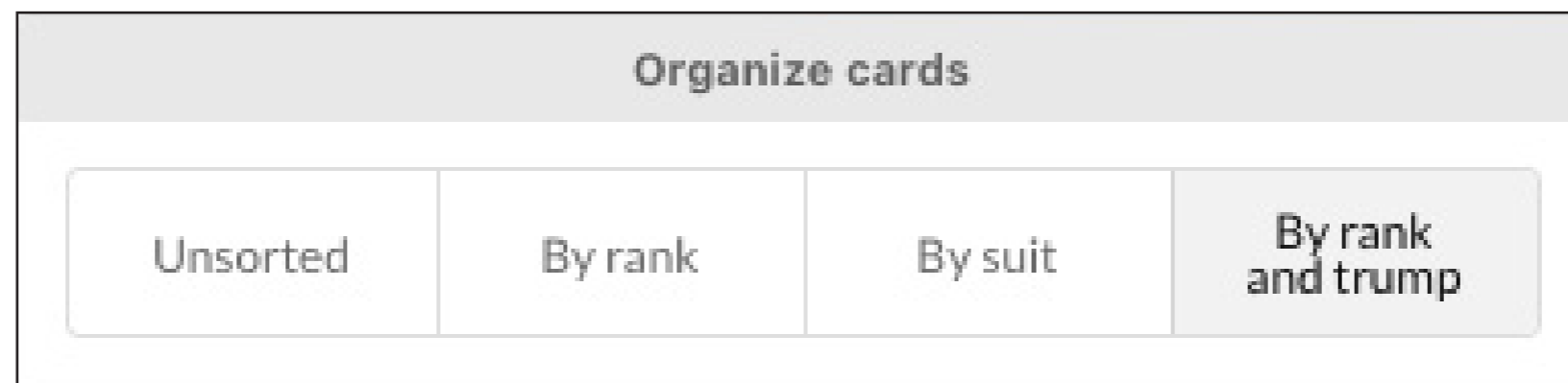

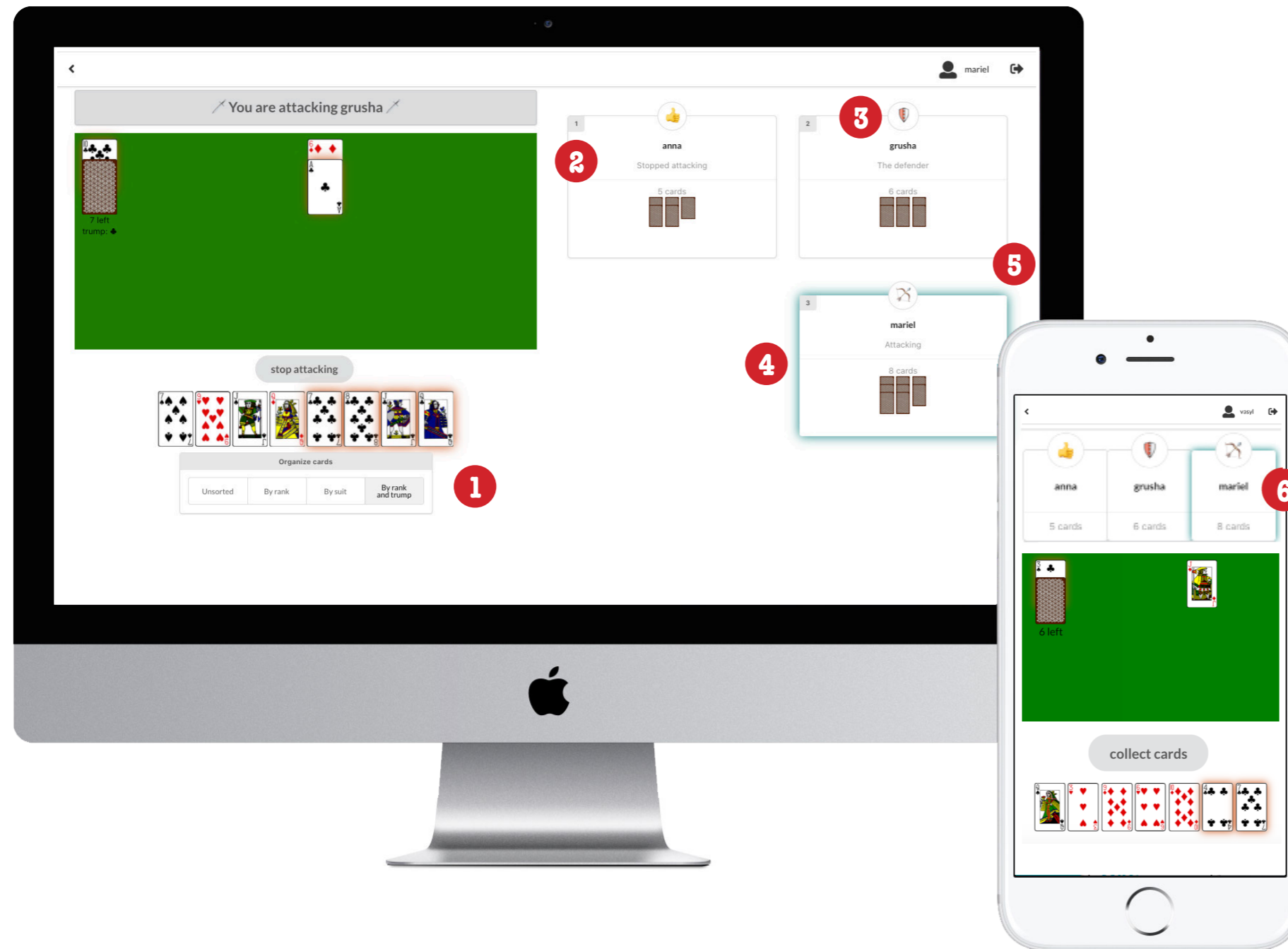Sorted By Rank

Sorted By Suit

Sorted By Rank/Trumps

Organize cards

| Unsorted | By rank | By suit | By rank and trump |

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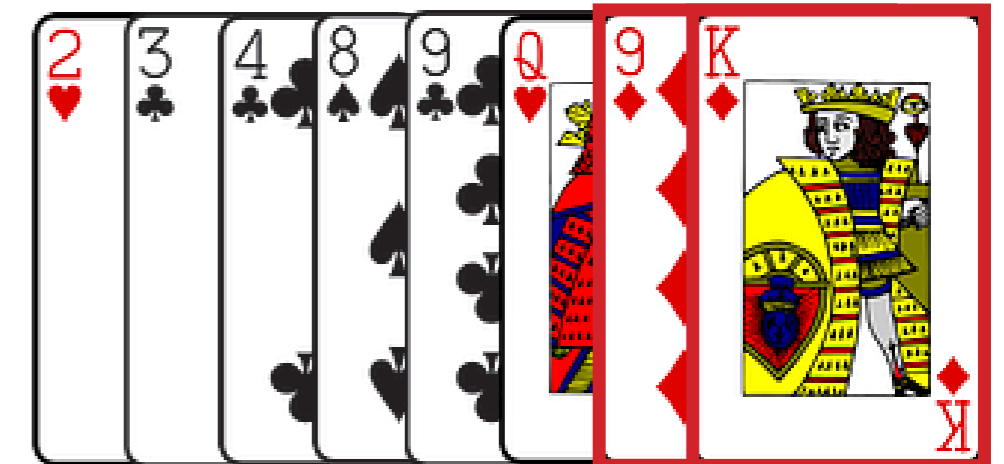
> " **Ahh! Sorry, I keep forgetting it's my turn!** "

Version 2 Updates:

1. Incorporate **card sorting buttons** based on popular sorting schemes

2. Add numbers at the left corner of each player's module to indicate the order

3. Emphasize the **player's role** in the round

4. Teal glow outline indicates the player's location at the table

5. The orientation of the players' modules is a skeumorph of players at a table

6. The mobile view adds the player's role on top of their module

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Pain Point

Card Overflow

When the user has a large hand, the cards overflow to a second row. This is a bigger problem on mobile, because it forces the user to scroll down, potentially cutting off important information on top.
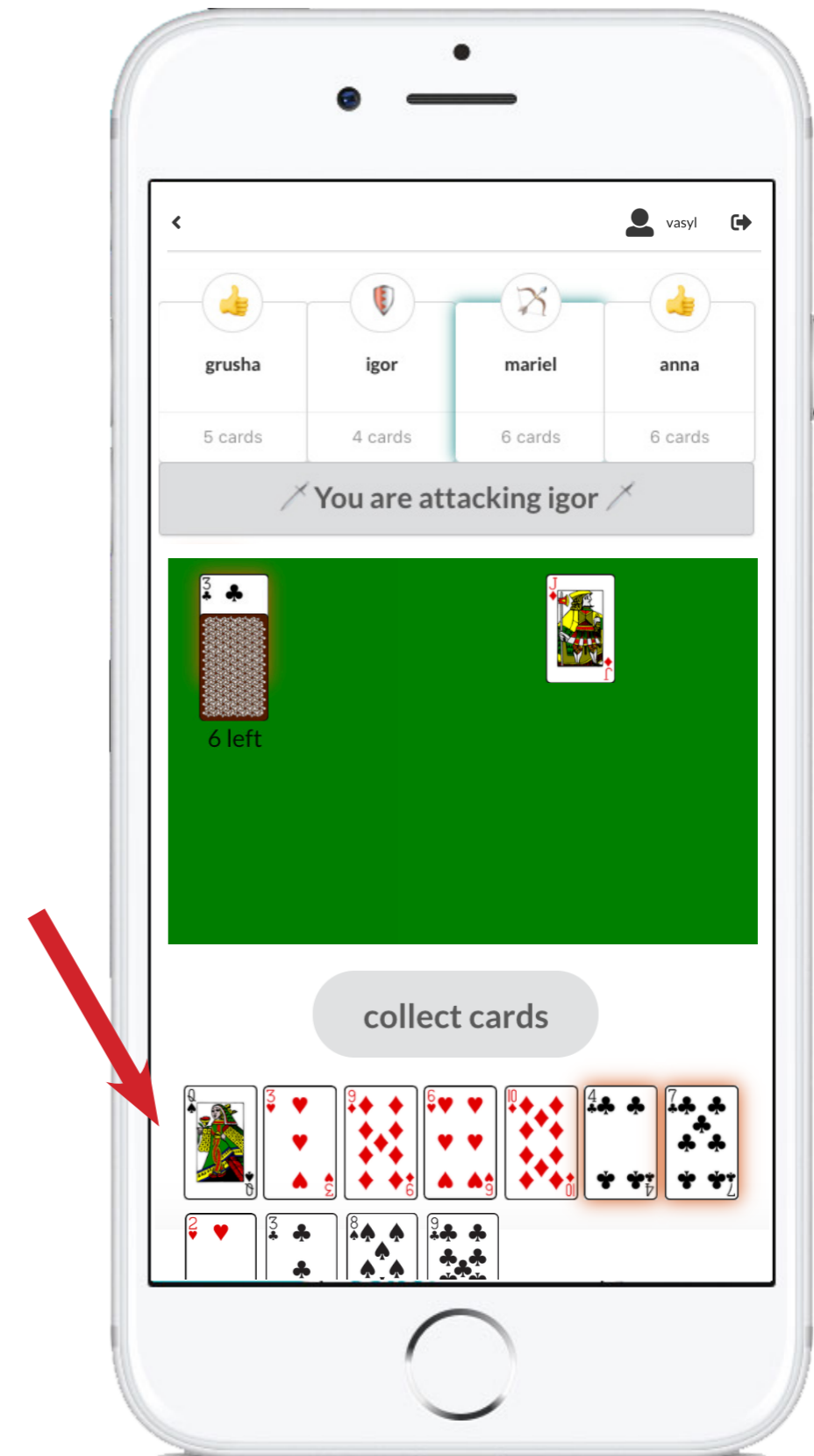
The new horizontal layout of the cards allows users to swipe
left and right to view all the cards in their hand.
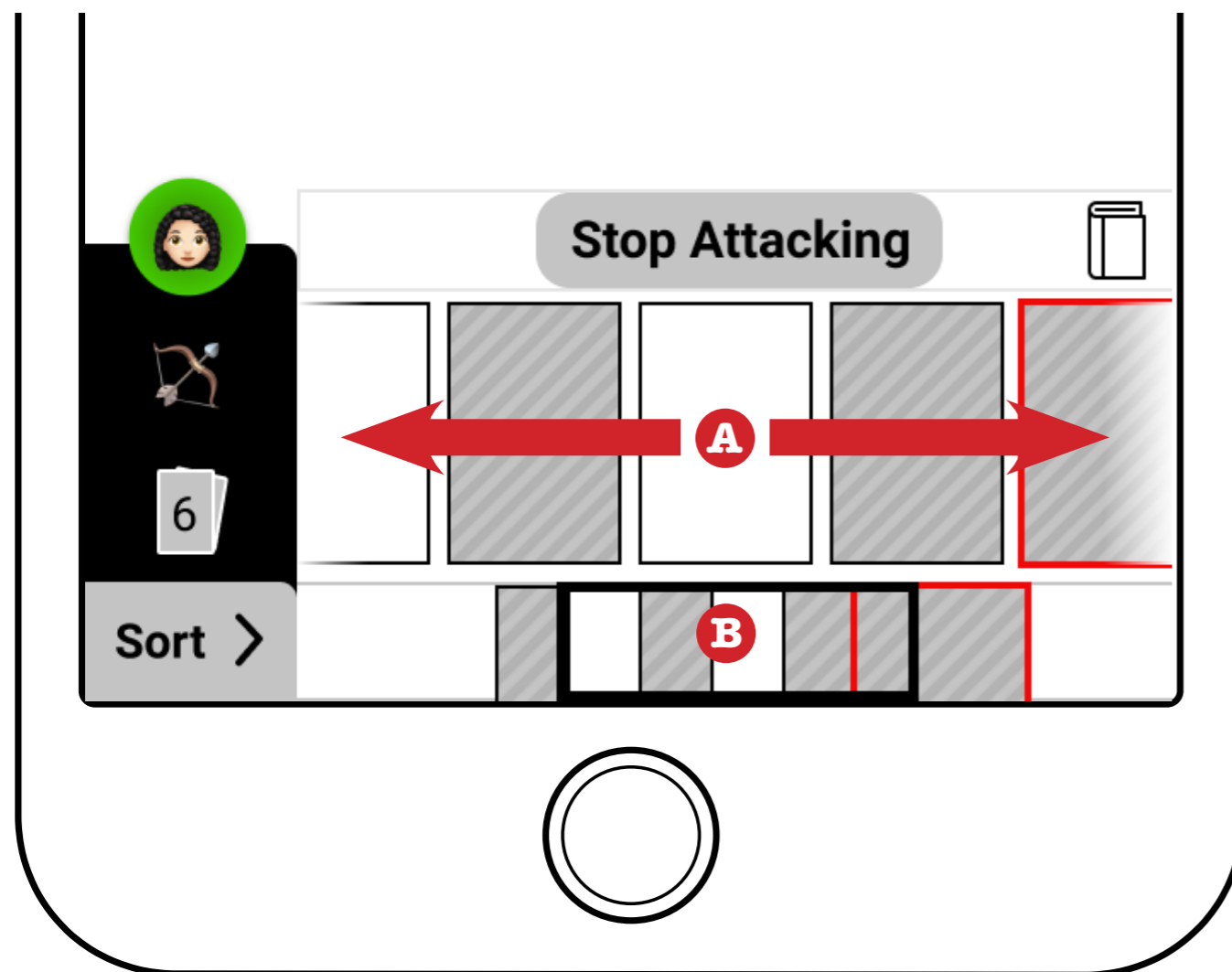
A Zoomed-In View:
Top row shows the cards spaced out, side-by-side, so users can see and interact with individual cards easily.

B Full Hand View:
The bottom row shows all the cards in the player's hand, so users can access all possibilities and make better game decisions.

Clarify Order

The user testing proved that the game flow was unclear. The numbers at the top left of each player's module and the teal glow outline indicating the user's position in the order, did not do enough to clarify whose turn it is.
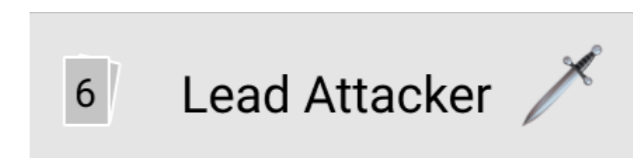
Round 2
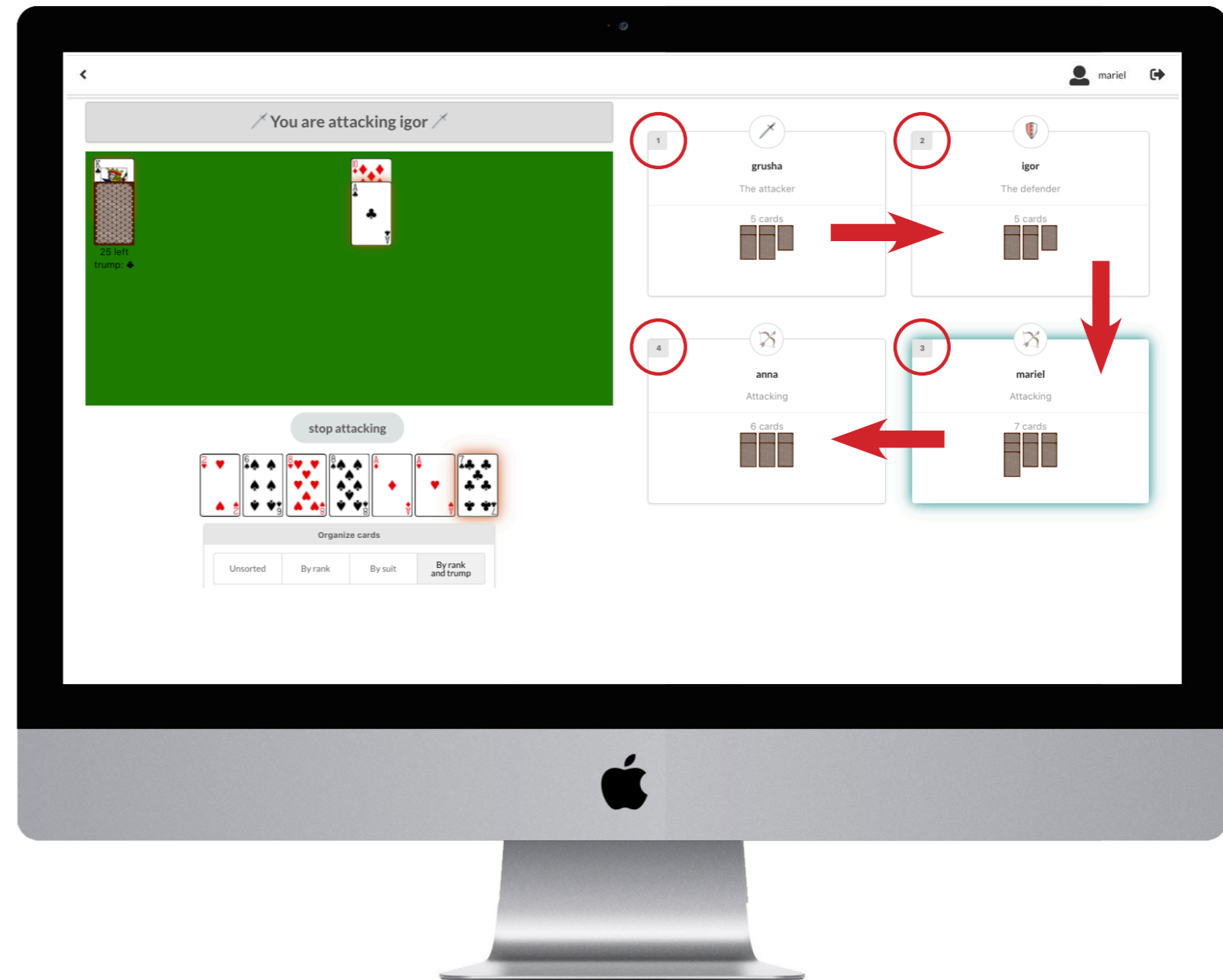
The user's hand and game information are all displayed together so the user has a better orientation to their position in the order of attacks.

Action Indicators:

A red bar indicates that the player needs to take action.

A white bar indicates that the player has finished their move or an action is not needed.

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Displaying Player Actions

An annotation of each player's move is displayed at the bottom of the screen, so it is frequently left unnoticed. It is important to emphasize because this variant of Durak allows many players to attack at once. Therefore, it leaves users confused as to which attack card belongs to each player.
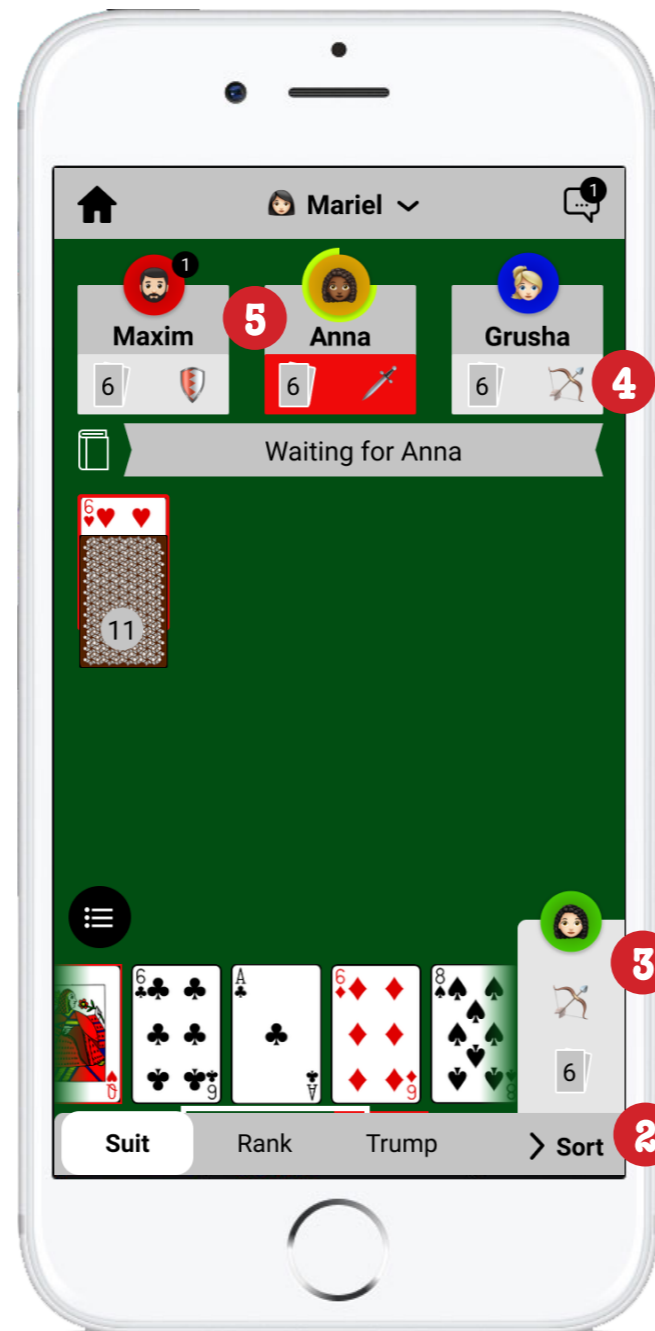

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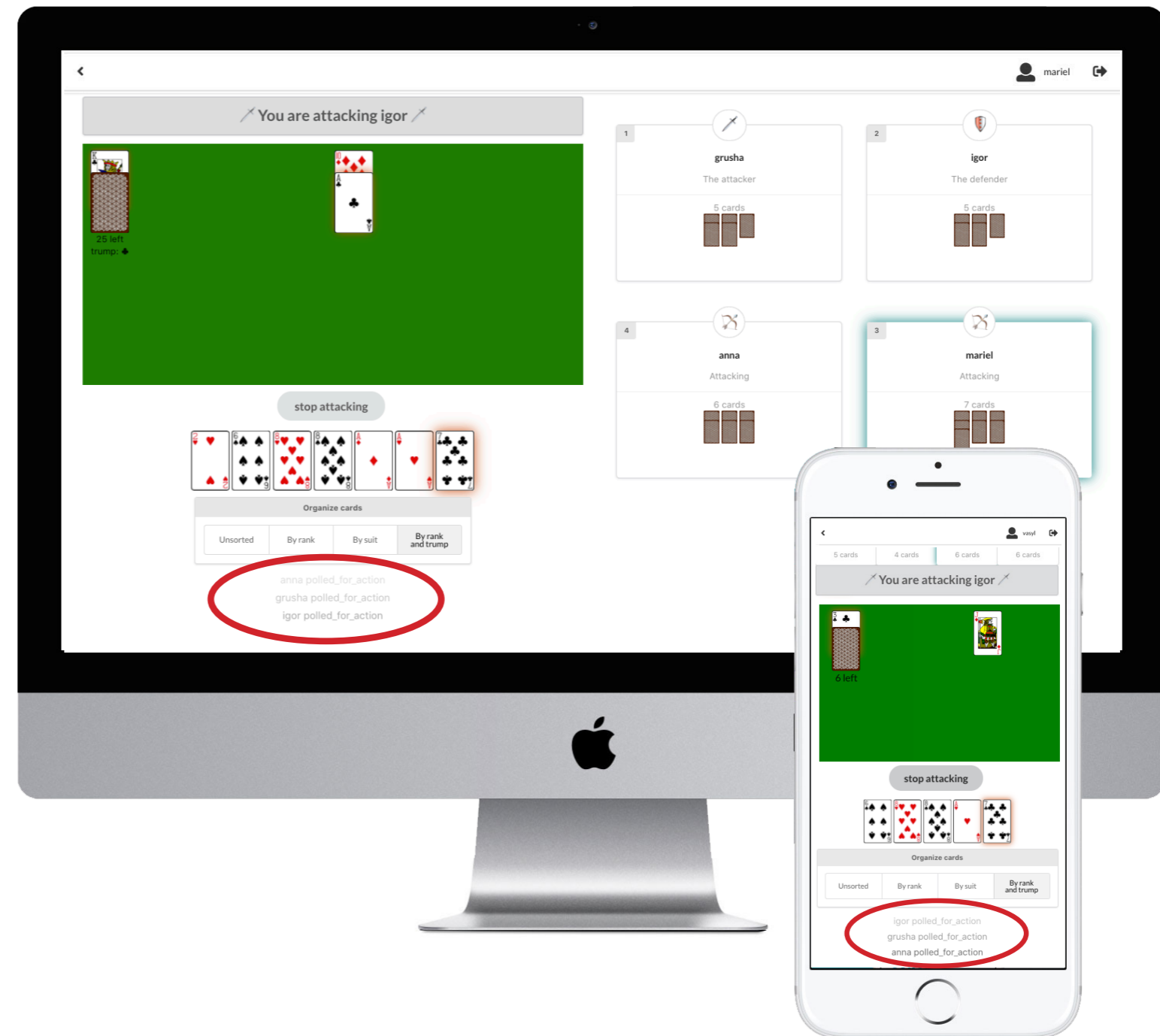
Each attack card now shows player ownership. The player's icon is displayed on top of the card they put down.

> " **You should be able to see six cards at any given time.** "

Version 3 Updates:

Correcting Card Overflow

1 Cards are displayed in **full hand view** and in **zoomed-in view** for accessibility in viewing and interacting with cards

**2** Sorting buttons are now within view

Clarify Order

3 The user's name, icon, role and card count are consistent with other player's display

4 Card count is condensed into a simple numerical icon

5 A player's turn is indicated by a bright **red banner**. For color blind users, the banner contrasts to the dark green background

Display Player Actions

6 Attack cards show **player ownership**

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Optimize Card View

At the end of each round, players draw new cards from the deck until they have six cards in their hand. This action continues throughout the game until the deck has been exhausted. So, it is wise to design so that six cards can be readably viewed throughout the game.
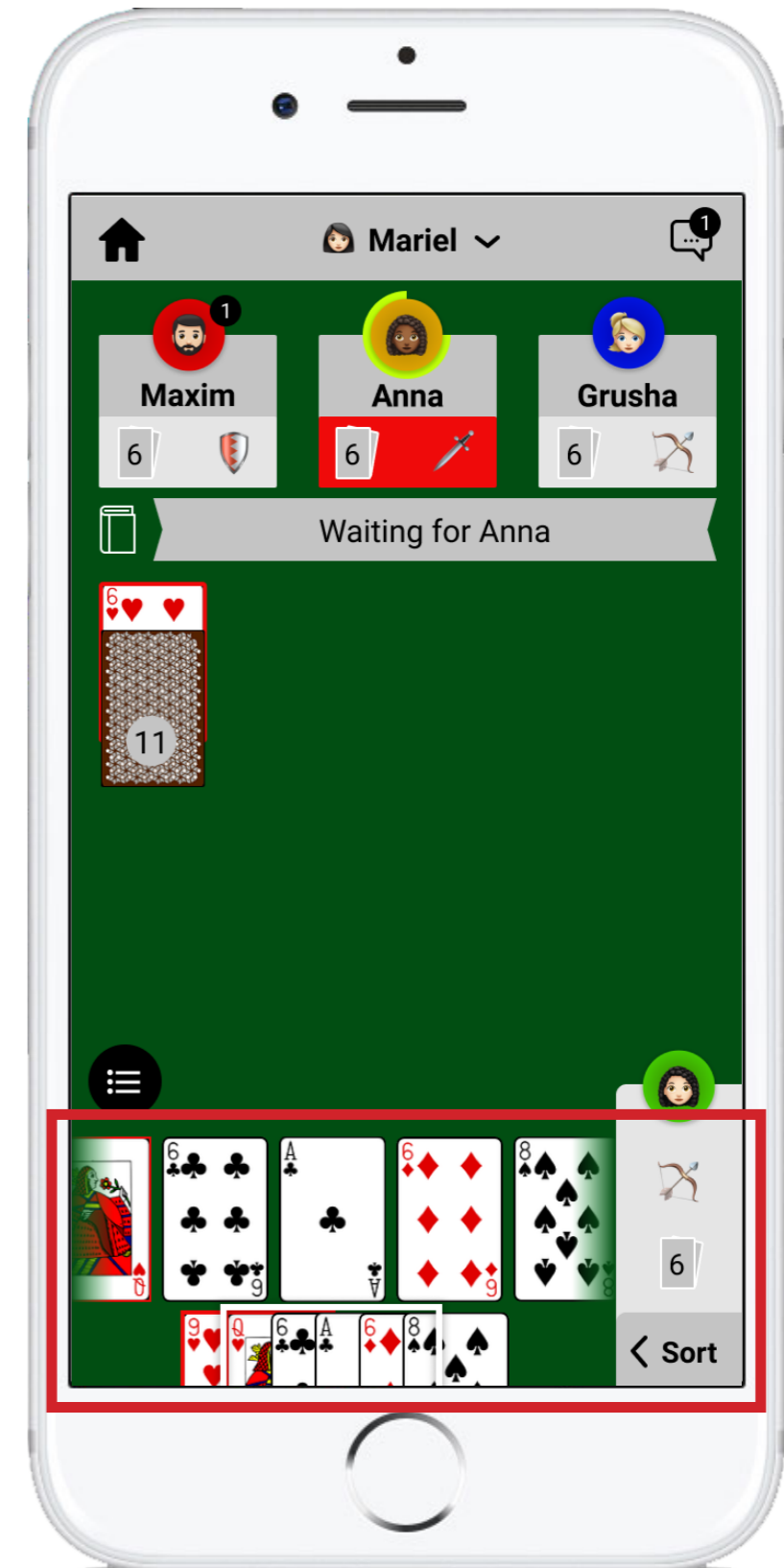
The cards are now displayed across the full width of the device so that there is always at least six cards in view. I moved the player information above the cards.
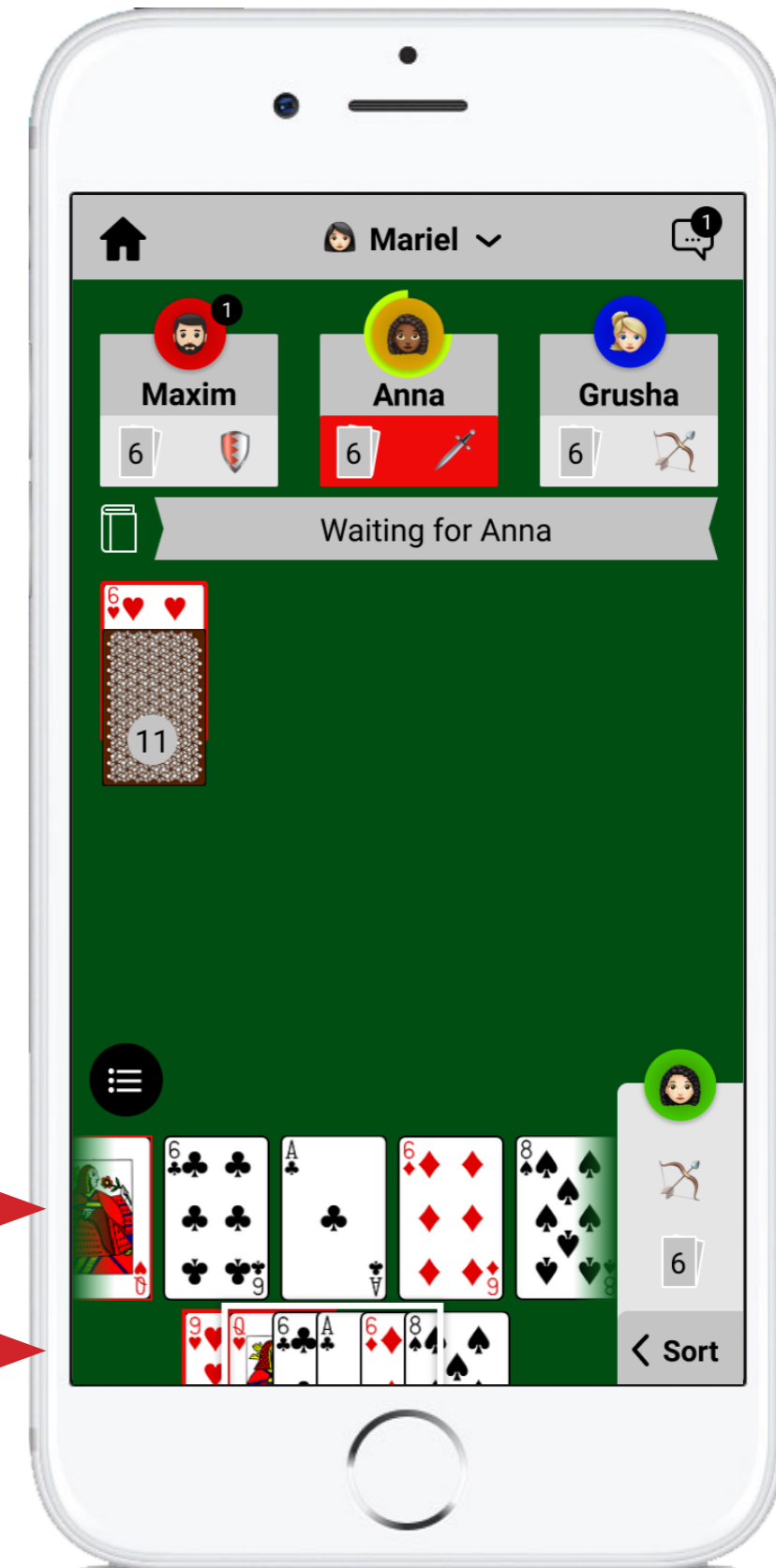
Improve Card Interactions

The intentions of the duplicate card view were to offer the user two perspectives: an overall look at their hand and a more accessible interactive view. Clarifying these intentions and their interaction will improve usability.

Zoomed View ➡

Full Hand View ➡

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The user can now scroll left and right on the full hand display at the bottom. This gives the user more options on how to look through their hand.

Condense Navigation

The organization of icons needs improvement. Certain buttons are repeated with different functions, so its important to create consistency and differentiation when needed.
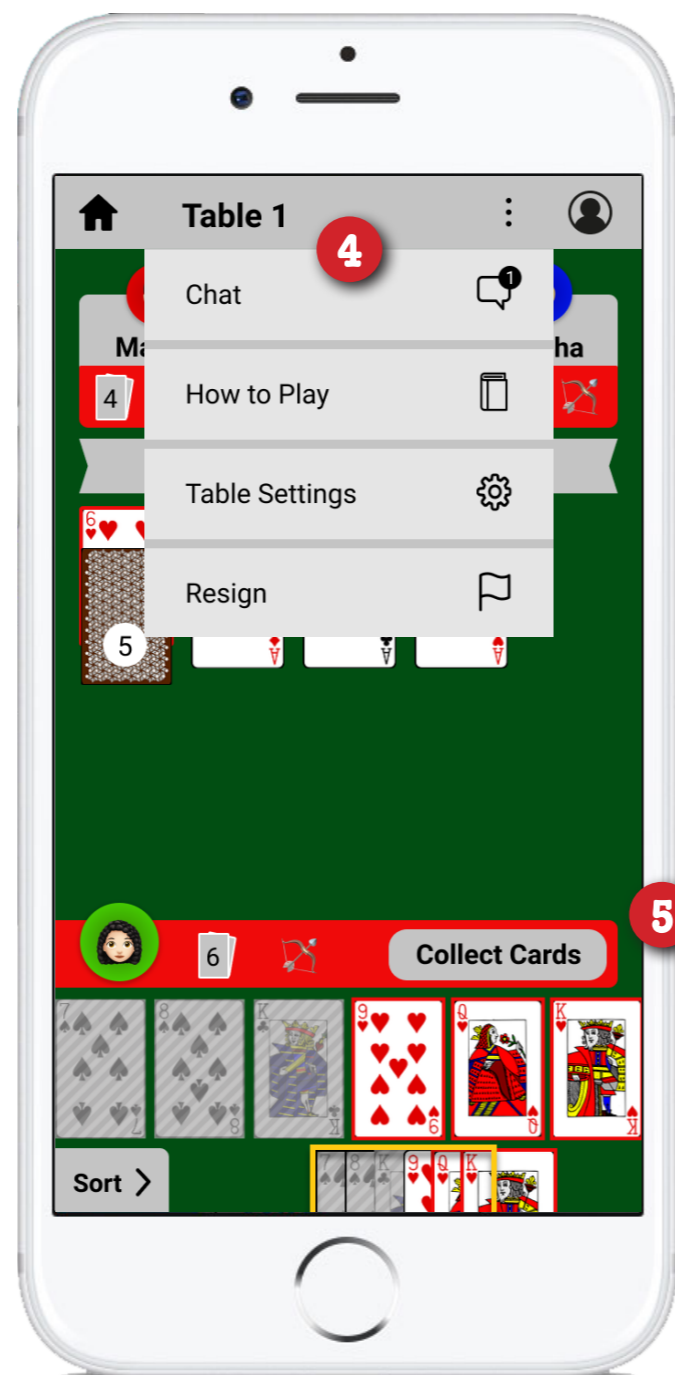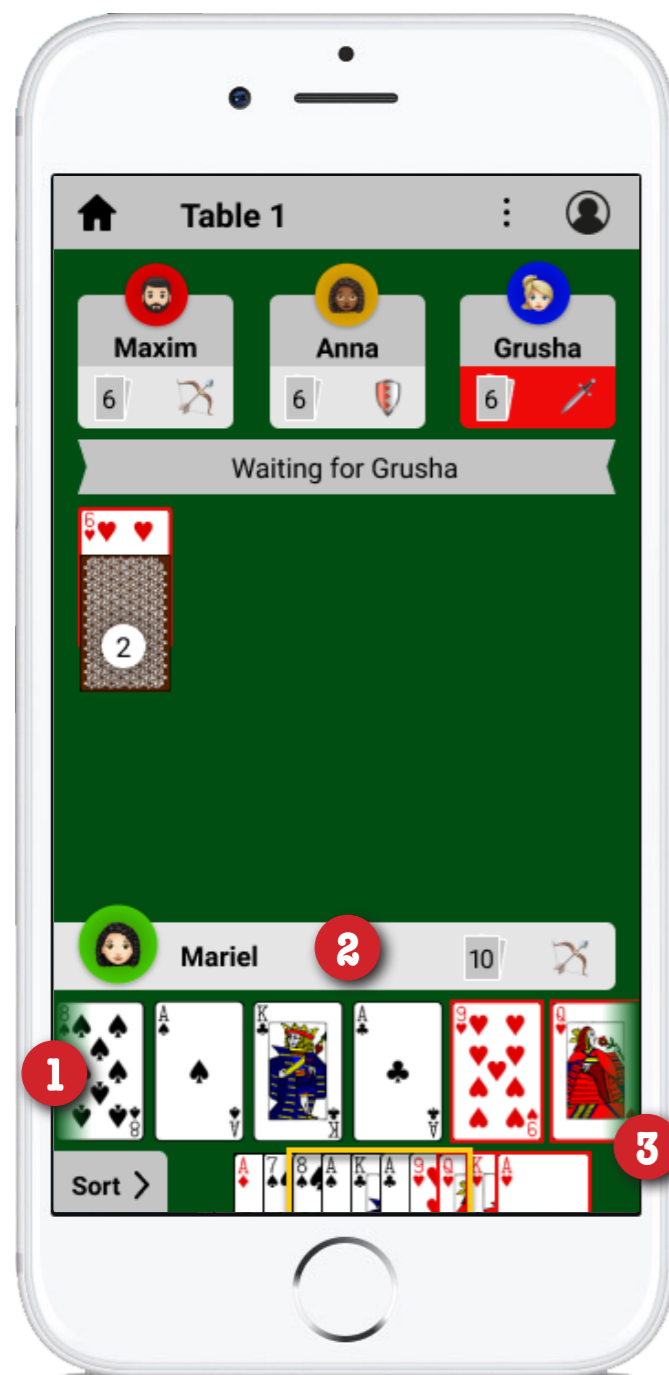

23
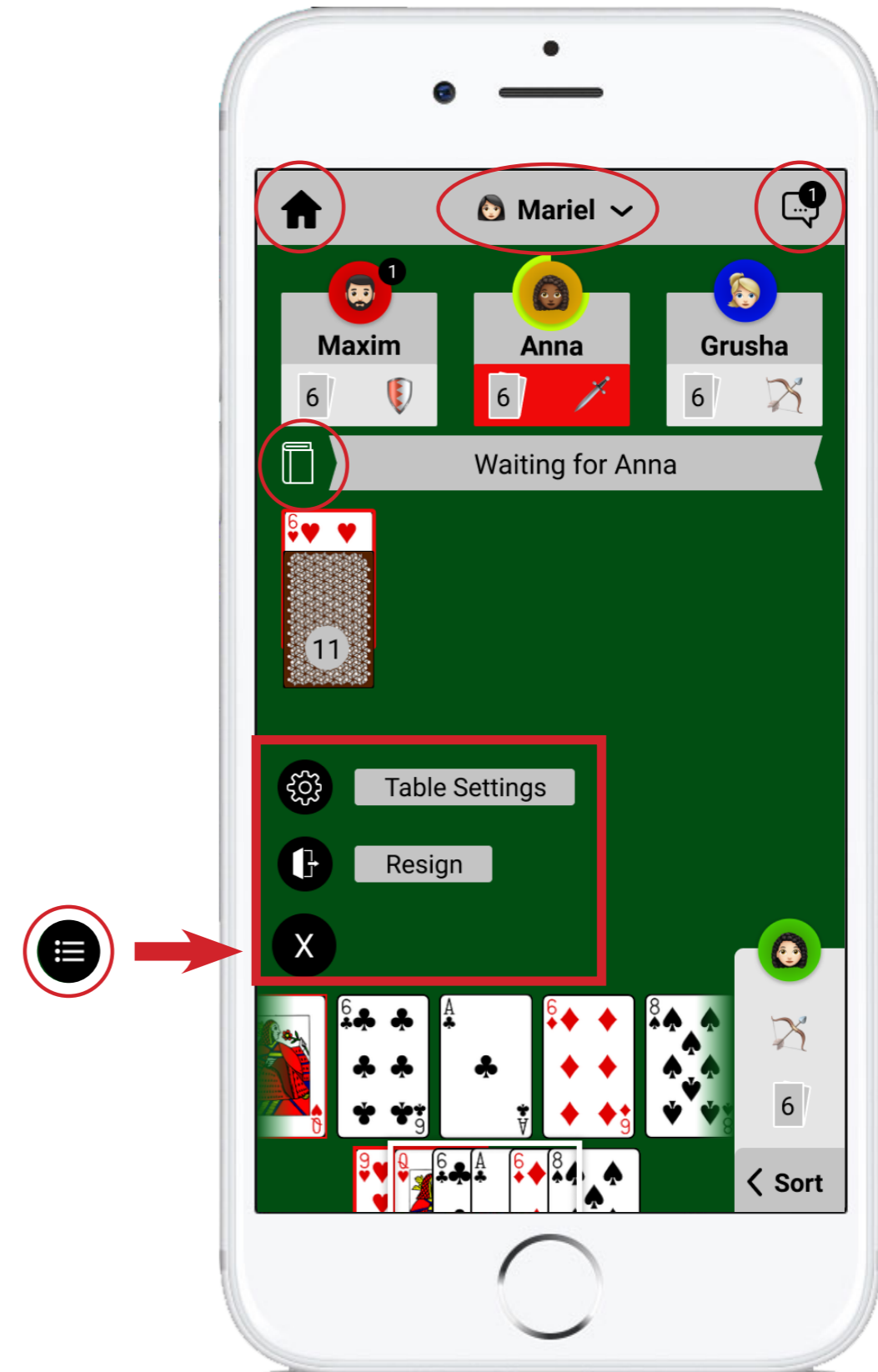
I placed all the buttons within the top navigation bar. I organized all the settings pertaining to the game in a dropdown menu centrally located at the top.

" **It's pretty straight forward and it doesn't feel too cluttered.** "

Version 4 Updates:

Optimize Card View

1 Cards are displayed across the **full width** of the mobile device so that there is always at least six cards in view

2 The player's current game information is displayed above the cards

Improve Card Interactions

3 The user can **swipe side-to-side** in full hand view as well as in zoomed-in view

Condense Navigation

4 All table interactions are organized within a main **dropdown menu** located in the top navigation bar

5 Player action buttons are incorporated within the player's information bar
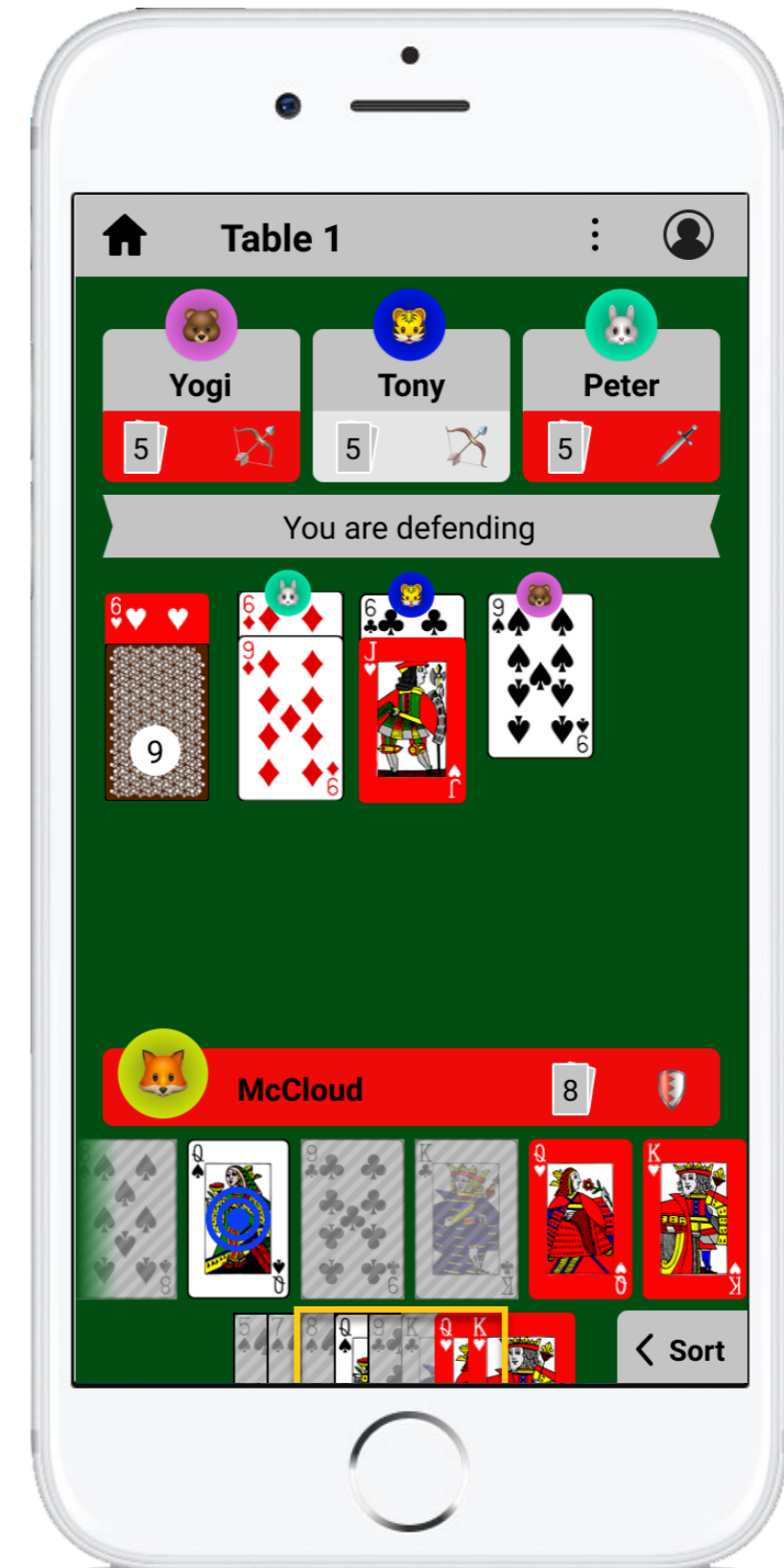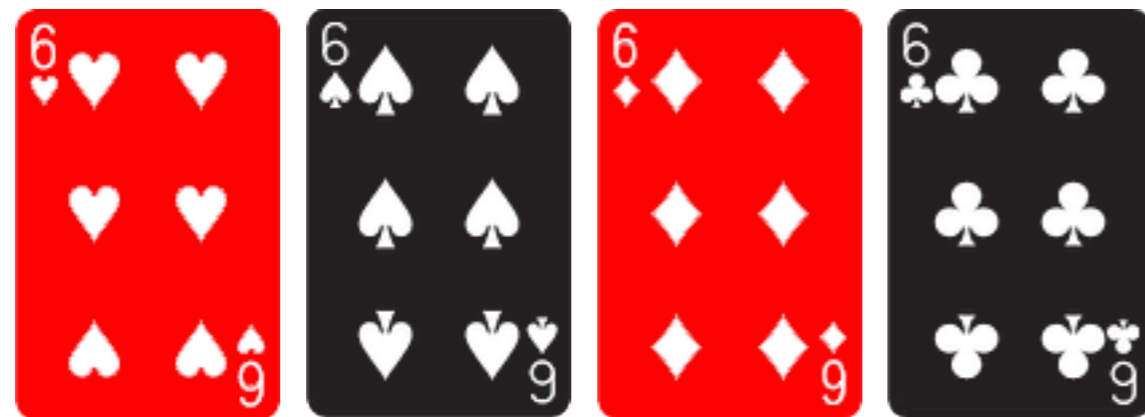
Differentiate
Trump Cards

Trump cards hold higher value in Durak, so making these cards stand out are crucial to the game. The red outlines on these cards were not very prominent to players.

By inverting these cards users can clearly distinguish the trump cards from the rest. This also helps color blind users to easily differentiate trump cards in every game.

IV. MVP (Minimum Viable Product)

Eliminated Features

GAME TIMER
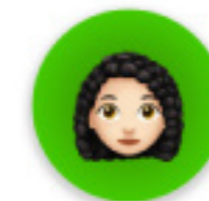Reasoning: By improving the gameplay we can naturally speed up the game.

CHAT FEATURE
Reasoning: The feature was too difficult to moderate (cursing, racial slurs, etc.)

CUSTOMIZABLE AVATARS
Reasoning: Randomizing player icons and background color will set players apart from other players.

Final Designs: