



# Noroff

School of technology  
and digital media

# Technical Report

Semester Project 2  
Board Game

GitHub repository:  
<https://github.com/Anette88/boardgame>

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# 1. Summary

Started this project with choosing the characters to choose in the game.

Used Adobe Illustrator on iPad to draw the characters, so that they could be used as tokens in the board.

Sketched up the layout of each page.

Started with the coding. The board game. Ran into a lot of difficulties, and used most of my available time on coding. Making the code work as planned, and figure out how to fix the errors as they occurred.

Learned a lot from this project, started with a lot of questions and did not really know where to start even. But one thing at a time I got closer to the solutions for the game.

Ended up completely neglecting the design part of the assignment. The time ran out from me and now the winner page is completely without any design aspects. I regret this and my priorities should have been different.



## 2. Body

### 2.1. Introduction

For this Semester Project we were asked to create a board game. This would be an online board game for Game of Thrones.

The board game will have three main pages:

#### **The character select page:**

A page to select their character.

Create characters from Game of Thrones that the user can choose from. They should show up in cards displaying all relevant information about that character on this page.

The user should only be able to select two characters. Once the character has been selected, the chosen characters should move to the board where they will be represented by a token or icon on the board.

This page should be responsive.

#### **The board game page:**

Mimic a board game. Each of the characters that were chosen from the previous page will be used on this page as a token. You will need to create dice which can be rolled and will only produce a number between 1 and 6. Whatever number the user rolls on the dice, their token will advance the number shown on the dice. This will obviously have to be automated. From the start to the end there should be 30 tiles for the token to move on.

To make the game interesting, you'll need to add a few traps to slow users down. For example, if a user lands on tile 15 there could be a trap, and the bead or token should then move back x spaces.

Minimum 5 traps on board.

When a six is rolled on the dice the system should know that the same player will get another turn. The application should also swap turns between each token depending on whose turn it is to roll the dice.

#### **The finale page:**

A bead or token will eventually need to reach the end of the game. When the token wins the game, you are going to have a finale page where you will congratulate the user that has won. This page needs to be aesthetically pleasing. It would be nice if you could do some JavaScript animations on this page to make it interactive. Use your imagination here.



## 2.2. Main section of report

### Design

I started this project with a few simple sketches to display what I wanted to show in the game.

I drew the first page, showing each character in a card. With their photo on top, and then name and relevant information following underneath each photo.

I then tried to make a color scheme. I visited different online games just to see what kind of colors that were used and to get a feel of the level of elegancy in such a game.

I looked at different color schemes already made with the name "Game of Thrones" to see what kind of colors that were used.

I tried using one of the color principles that we have learnt about previously.

I like complementary colors and ended up with a palette I think works well with the Game of Thrones personality.

I then made a decision which characters I wanted to use in the game as tokens. I googled their character name and found pictures of them that could work. I then drew the pictures using Adobe Illustrator on iPad. I wanted to use these drawings both as pictures of the characters in the cards on the first page, and as tokens in the board game. Also the winning token will be displayed in the last winner page.

I chose different background-colors on each of the tokens, a decision I am not really convinced was the best one still. It was a process between wanting to only use the colors in the chosen palette, and the fact that separating the different players is much easier when the colors are different. Also, all of the characters belongs to different houses, so keeping them separate seemed to be a good idea.

### Coding

I struggled some to get started with the coding of this assignment. It seemed so massive and complicated that I did not even know where to start this.

I had originally visualised the board game being made with a grid of some sort, and then that the tokens would be placed inside the different grid placements. I did not really know hoe to sort this technically. The advice from one of the teachers was to create the game using a for loop. Each circle or place in the game is now a div that is created in a for loop.

I created the random method for the dice rolling. Ensuring that there was a random number between 1 and 6 each time the dice roll button was pressed.

And then there was the issue of placing the token in the div that matches the number on the dice.

I created a variable named total, and the value of the variable was total + the value from the dice roll. Then I created a variable that get the circle with the id equal to the total. And



then use the inner.HTML to create a new div inside the circle div. This new div contains the token of the player.

Next thing I struggled with was deleting the previous place of the token of player 1 without also deleting the current place of player 2.

I got some pointers from Connor and then added some code that checks whose turn it is and then run code according to that.

I still, when writing this, has not figured out what to do if the tokens end up in the same place. If this happens now, the tokens are not deleted when the tokens are moving on, instead the tokens stay there as well as move to the next place. If this happens many times, there are a lot of tokens on the board, and it is hard to keep track.

I added the traps, that did not take to long, but I need to add some kind of delay before the alert message that says that you have to move back comes up. Now the alert message comes before you can actually see what value you got from the dice roll, you only see that you ended up in a trap. Hope I can figure this out before delivery.

I also added that if you roll six, it is the same players go again.

For the first page, when you click on one of the characters to chose as your token, and player 2 has done the same, you should jump to the board game, and the tokens should appear in the board where the players are at.

I struggled with making the style on the div change to show the selected token. But after some guidance from Connor (again), I learned that I need a way to save the info in between the pages. So when you press for example the token for Tormund, I have to save the information "character = Tormund" in the local storage. And then I can get the info from storage to display the correct token on the board. So I used the setItem and getItem to do this. The problem is still that I can not change the image using

```
document.getElementById("token1").style.background = url("tokens/Ramsay.png");
```

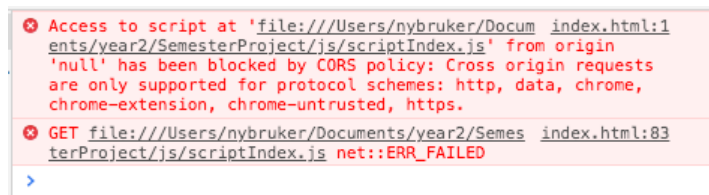
I can change it to a color, but not to an image. Also I am not sure where I my code I should activate the functions chooseCharacter1 and chooseCharacter2, so I will leave them written out. And the tokens will be hardcoded in the css file.



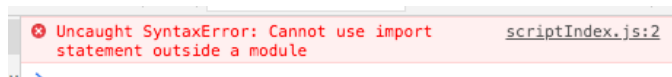
### Getting info from the character file

I could not get the information from the array to the script.

Bjørge from my class tried to help me. But when I changed the script to type = "module", I got an error



And if i removed the type=module I got the error:



So, i am a bit lost on how to solve it.

My plan was to access the array and show the information in the cards.

But I started this a bit too late, so there was no time to ask teachers for help on solving it.

## 2.3. Conclusion

This was a very interesting and learning-as-you-do project that I liked very much. When I first read the assignment I felt it was impossible for me to create the coding part of this. It sounded super-advanced. But I got some help with the start and managed to make it an actual game where there is a winner.

I have not spend nearly enough time on this project though. I know there are no excuses but between moving homes, working overtime on my day job and the christmas break, I fell really behind on this assignment, and have been working and still am working on getting the code right the last weekend before delivery. I still have to figure out how to access the data from the localStorage to the board game, as I am getting an error code when trying to run that function now. Best scenario would have been to be completed with the coding and most of the design at least the week before delivery, so that I could have used the last week fixing minor bugs and design issues. This has sadly not been done in my case and I regret that.

That also means that the design has been massively down-prioritized because of the time issue. I am happy with the tokens I designed, that was done in the start of the assignment. I think that you can at least almost recognize who they are in the drawings. But I am missing a lot of the design that would make the board game more fun and look more professional. Also I don't have any design on the winner page.

Ideally I should have spent at least one more week on this assignment to get it to where I wanted it to be.



I still have a lot of bugs and the game is not functioning after the specifications given in the assignment.

I am still happy and proud of the game itself and feel like I learned a lot during this project. I am really thankful for teachers that are willing to spend time helping me when I am stuck, even late at night when I am working with the project.

The coding part of this was interesting and difficult as always.

The errors in the game now are:

- the chosen characters are not shown as the tokens in the game
- if the tokens end up in the same circle, they are not deleted from that circle when they move forward.
- the winning token is not displayed in the winner site.
- When the tokens ends up in one of the traps, the token does not move to the trap and then back. It is hard for the player to actually see what trap the token has fell into before after the alert.

### 3. References

- Google
- I have not really used any references as there are not a lot of online board games.

### 4. Acknowledgements

Have gotten good help from the teachers, this time specially Connor O'Brien who have spent time trying to teach me how to fix my code, and showing me how I can solve some of the issues I have been stuck on. Would not have been able to deliver as much as I am without his help. I only work nights and weekends on the assignments, so it is extra valuable when the teachers are responding at night.

### 5. Appendices

Start writing here





