

Design Workshop: Block2 Challenge

Year1
Computer Science



**Middlesex
University**

Challenge Essentials

- Designing something for real users
- Team work (Good opportunity to change partners)
- Rapid prototyping
- Choosing the right tools for the job
- Coming up with new ideas, exploring things that are not explicitly taught

What is the challenge

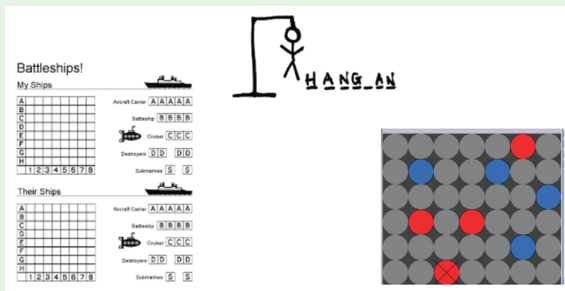
- Psychology students are conducting experiments on two player games, comparing the different ways to play I.e. with real tangible objects, mobile devices and last but not least PCs.
- One of their requirements is to collaborate with computer science students to think about different ways games can be played.
- Your job is to create the game using Racket

Some Neccessities and Suggestions

- Must have a GUI
- Must be a game/Allow to people to play*
- Feedback showing the game state
- Allow players to perform moves
- Disallow illegal moves
- wining state + notification
- Can work individually or in teams no greater than five

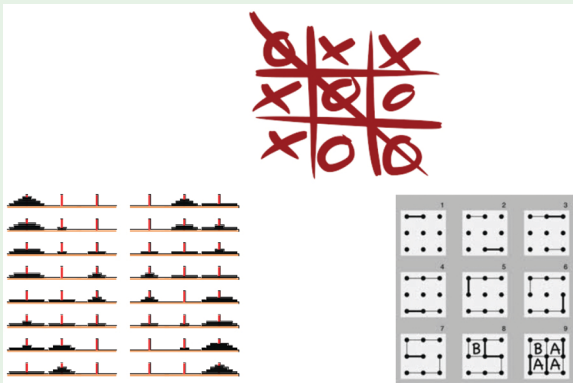
Possible Ideas

Example



Possible Ideas...

Example



Challenge..

- Think of this challenge as your first product, a way to not only show off your skills but also your design thinking.
- As always you will want to be prepared for questions, possible enhancements and any other ideas you may have had.
- with this type of challenge you will want to focus on user friendliness, ease of use (simplicity is key)

Acquired skills

Exercise:

- STD, Pre and post conditions/testing.
- Higher order functions, Conditionals, Let construct, For loops, Recursion, Vectors, Lists, Sets, Structs, Classes objects and Methods.
- Design thinking, Ideation, rapid prototyping
- Time management, Working in groups, sharing ideas with others.

Submission

- End of Block 2 (Wk 16)
- It's also an opportunity to gain some SOB's you may have not have demonstrated yet or missed from the first challenge.