

Interdisciplinary Assignment

Web development Spring 2016

Case: SQUARES

Description of case:

Squares is a digital gallery for new art, where gallery visitors can fashion and create the final expression of the art pieces.

On Squares artists create new artworks that are divided into small digital pieces that visitors can play around with and put together via a digital interface. Squares is an open art playground where you can purchase printed versions of the artists' works reworked into your particular personal design.

Squares will be a global, user-driven and interactive gallery where people from around the globe can dive into the artworks and create works that fit their expression and experience.

At the same time Squares is a fascinating and imaginative business concept that attracts artists, both because, of the initial challenge to their creativity, and because they can sell and profit from their work.

Squares is a new project lunched by KongOrange. KongOrange is a freelance-based development bureau specialising in digital entertainment across multiple platforms (kongorange.com/).

Current idea of how Squares could work:

(You can make improvements and changes)

1. An artist, for example, Kamila, creates five different motives each on a small square piece. Each piece is about the size of a Polaroid photo. The five pieces can be freely put together, to form several different motives. Some artists choose to develop pieces that are figuratively linked, while others make abstract checkers, which allows you to mix the pieces like mosaics etc.
2. Kamila upload her set of five pieces to Squares.
3. You can use Squares to browse sets made by artists from around the world, including Kamilas set. Moreover, you can judge each set and give it a grade.
4. The best user-rated sets will continuously be selected and the artists behind them will get the opportunity to complete a full set of 25 pieces. Kamila is a skilled artist, so she is selected!
5. Kamila develops a full set of 25 pieces including the five original pieces that got good remarks.
6. Kamila names her set FREAKS, because you can combine various freaks. She is paid 10,000 Dkk. upon uploading her full FREAKS set to Squares (see attached mock-up of this set).
7. All other full set, are available for browsing on Squares.

8. You can rearrange and re-imagine all of the full set on Squares on your own digital canvas by rearranging the pieces, to create new compositions.
9. You can share your personally assembled kit on social media. You can also share other users' composition and comment on them if you think it is good and deserves attention.
10. If you really fall in love with one of your personal versions of a set, you can buy them.
11. You can transfer your artwork to different formats: a poster, a framed picture or a t-shirt and get it delivered for a fee.
12. You can also buy the 25 pieces in a set as physical cardboard pieces. Bring them home and make your own combinations on the living room table, or giving a set away as a small present or corporate gift. The artist gets a share of the revenues generated through the sale of the artist's own set.

Group assignment:

The project is to be solved in groups of three or four members.

Hand out and official presentation:

A description of the assignment will be presented Wednesday, **May 4th at 11:40**. Each study group is required to prepare three questions for the assignment in advance of the official presentation.

The official presentation is on Monday, **May 9th at 8:30**. Esben Kjær Ravn, owner at KongOrange, will hold a presentation, describing the idea behind their Squares project and explaining the development process and your place in it. Expected duration: 45 minutes including questions. The presentation will take place in Auditorium A at the academy. The presentation is in English.

Hand in, Show off and Feedback:

The assignment must be submitted on Tuesday, **May 24th at 12:00**.

The Show off presentations will take place the same day, Tuesday, **May 24th at 13:00**. Each group is required to hold a five-minute show-off presentation of their solution to the assignment. Esben Kjær Ravn from KongOrange will attend the presentations. This is your opportunity to show Esben how you think the project should work, look and feel in order to be a success. The presentation schedule will be announced at a later date.

The feedback session will take place on **Friday, May 27th**.

For the Feedback session, each group will give an 8-minute presentation of their solution. Including their own recommendation for improving their work. This is your chance to show the teachers that you covered all the requirements of the assignment, and have balanced your work effort in a professional and effective way. All teachers will be present and we expect feedback to take about 30 minutes for each group. The feedback schedule will be announced at a later date.

Number of pages:

Task report must contain five pages per group member + five pages. (A group of four members will hand in 25 pages in total)

Material:

The following material provided by Esben at KongOrange, are available on Fronter here:

There are no requirements as to how or where you use the material in your project.

The material includes:

- A mock-up of a set of pieces. Includes: 38 pieces + 8 named example combinations.
- Personas for target groups, developed at KongOrange.

(KongOrange owns the set of pieces for Squares. This means you do not share or sell it without authorisation from Esben at KongOrange.)

Minimum site functionality to pass:

- The entire website must be responsive.
- A homepage for the site Squares.com.
- A descriptive "About" section or subpage explaining the service provided by Squares.
- A working sign-up form and a working login function.
- A profile page with the option to upload and manage Square sets.
- The "make you own art" tool where users can rearrange pieces to form new artworks.
- A backend access with working administration of users and Square sets.

Choose at least one of the following functions and implement it on the site:

- Functional search feature.
- Backend tag-management system.
- The rating of Square sets system.
- The sharing of Square sets to Social media.
- Browsing function of available Square sets, combinations and products.
- Web shop for purchasing Squares and choosing format.
- A backend overview of recently add users, Square sets and current rating of existing sets.

Minimum course-requirements to pass assignment:

Database:

You must make a SQL database - and you can choose whether you want to use entity framework or not. You must include a data model of your database in the report where you explain why you set up the tables the way you did. You have to make at least one stored procedure. You must argue why you have chosen to create exactly this procedure in the report. This stored procedure should be use to solve the requirements from the Backend course.

Backend:

You must construct an ASP.NET MVC website for Squares.

Content from the database must be an integral part of the solution. There must be database content on the site's public area, and there must be a non-public module, which requires login for registered users.

In the report, you must document and describe how the following elements are part of the solution:

- Your models and any relationships between them - use UML.
- Layout of views, partial views and child actions - what did you use and why?
- Model validation - describe the validation you used.
- Which approach did you use - a database first or a code-first approach (Entity framework). Give argument for your choices.

Interface design:

Using what you have learned, and drawing upon theories presented in the course, you must design the interface for the Squares website and the interface for the backend access to the Squares system. The report should include the following:

- A description of your ideation- and design process with documentation in the form of pictures displaying your sketches, wireframes etc. Describe each step in your process and explain what you learned or changed along the way. Reflect, and show us that you made conscious choices. Do this by describing what you hope to accomplish, what happened and how you adjusted.
- Explain what User Experience you want the site users to have. Explain why this experience would be beneficial for the spread and use of Squares service.
- Use Jonas Löwgrens, Christian Dindlers and John McCarthys theories on User Experience to explain and justify your choice of interactive elements that support User experience.
- Use Don Norman's design principles, Brad Frost navigation patterns and Alan Coopers recommendations to describe your design decision. This must include the front-page of the public site, the sign-up form and the tool for rearranging Squares so users can make their own artwork.
- You must include a description of your prioritization of content for both the public site and the non-public backend interface. This should also cover ideas for a general communication strategy. Think: "what story is your site telling in order to lure users to it"?

Frontend:

Create a Style Guide for the public website to Squares. The Style Guide must include:

- Target group description based on the personas acquired by KongOrange. Comment on the personas and the target group they hint at. What values do they possess etc.?

- A colour palette with examples of colours and an explanation of your choices.
- Your choice of Font and an explanation of your choices.
- A Gestalt sketch and description of composition. Explain why you chose to organise your site in this particular way, knowing what you do about users and functionality.
- Explain how your design choices supports the sites content.

You also have to utilize technologies from the frontend course: HTML5, CSS3, CSS preprocessor (i.e. Sass) and JavaScript. Using jQuery and jQuery plugins is voluntary and you are allowed to use a CSS framework like Bootstrap. It is also voluntary to use automation tools like ex Gulp. You are allowed to use JavaScript frameworks like AngularJS.

In the report, you must document and explain how the following elements are used in your solution:

- Semantic HTML
- CSS3 and use of CSS preprocessor
- Central JavaScript algorithms
- Possible use of CSS framework
- Possible use of jQuery and arguments for use of possible plugins
- Possible use of JavaScript framework, i.e. AngularJS
- Possible use of automation tools, i.e. Gulp
- Browser compatibility
- Validation of HTML and CSS