Digital Media Design (BA/BSc)
Internet Design (BA/BSc)
Game Arts & Design (BA)

Assignment Brief

Module: DAT405/GAD405 Creative Coding
Brief set by: Stavros Didakis
Deadline: Sunday 10th December 2017, by 23:55
(Electronic Submission via DLE)

Assignment 1:

"Dynamic Emergencies"

Generative art & design is the practice that emerges from the collision of computational strict and logical processes with creative, unpredictable, and expressive techniques. This fusion allows emergent properties to take place, as the mechanical repetition and accurate instructions merge with the organic, chaotic, and irregular form.

In this individual assignment, you are asked to develop a generative work that either displays a new static content every time it runs, changes visual conditions over time, or changes according to user interactions (mouse and keyboard events). You are free to use any visual elements you want (shapes, colors, text, etc.), however, to achieve the final outcome, you need to use at least two of the following categories:

- Organic motion
- Randomness and Perlin noise
- 1D, 2D, or 3D loops
- Objects
- Arrays

The main tools acceptable for this work are:
- Atom (editor)
- GitHub (documentation)
- HTML, CSS, Javascript
- P5.js & any additional libraries found here https://p5js.org/libraries/

The program that you will develop needs to run on a web browser (Chrome), and it should consist of an HTML formatted and stylized web page with a final canvas window (size 594x841px). For the outcome you have to make sure that you balance in the most sophisticated way possible the technical functionality and the creative expressivity so that you allow the user to perceive a unique generative experience.

Deliverables:

For the final submission, you need to do the following:

1) Upload the following files on the DLE
   DLE limit is 50MB & 10 separate files (bear in mind that a zip file that contains multiple files is still considered one file according to the system):

   a. A zip file (named "NameSurname-405.zip") that includes the following:
      i. Folder with all code used in the project (.html, .js, libraries, etc.). Subfolders within this folder are acceptable. Each file you have coded has to be clearly documented and explained. You need for all submitted code (the files that you have developed, i.e. HTML, CSS, JS) to comment and describe exactly what each line does.
      ii. 500-word report in Word (NameSurname-405-Report.docx). In the report, you need to: (a) include at least 3 artists/projects that inspired you to develop this particular work, (b) discuss the development process (you may add any additional resources such as drawings, sketches, and so on), (c) analyze any problems or insights you had, (d) discuss about future upgrades, (e) include ALL related references, and (f) the link to your GitHub page.
      iii. 4 different images of your final screen composition with a resolution of 594x841px, 72ppi (.png file format)

   b. All code files that you have written for this project have to be uploaded additionally as a separate TEXT file (.txt) for each one of them. Thus, for example, you would need to copy your **script.js** file that includes the P5.js code to a **script.txt** file and upload the file to DLE. Do the same process with all different files that include code you have developed for this work (normally it would be only the HTML, CSS, and JS file).

2) Update your DAT405 / GAD405 GitHub Directory to reflect all your development process. In your directory, you need to have the following:

   a. README file that describes the development process of your project (similar to 500-word report, although in this file you may include additional information and instructions to help the user understand more clearly how to use this directory and its aim).
   b. A folder that includes your project, as in requirement above (**a-i**).
   c. A folder that includes your 5 PNG images, as in requirement above (**a-iii**).

3) Upload your final work to GitHub Pages (website for your code - https://pages.github.com)

Marking Criteria:

For this project, you are asked to explore a range of creative coding practices and methodologies in order to develop your own generative interactive system. Thus, it is important to see the following criteria for the examination of your work:

1) Research (1, 2)
   How relevant is your research in relation to the brief, and how effectively you demonstrate this through the practical development, written explanation (report), and final outcome.

2) Experimentation (3, 4)
   The amount of experimentation is necessary for this assignment. You need to experiment and explore a set of different coding examples and critically evaluate how this work better informs your final decisions. Through this accumulation you are most likely to achieve the expected results (GitHub metrics are used to analyse your level of engagement).

3) Aesthetics & Composition (3, 4, 5)
   The selection of your composition elements is crucial, and you need to critically examine all choices so that a balanced final result will emerge. Be extremely cautious about the choices you make (shapes, colors, motion, etc.), and be as informed as possible from your research and inspirational works.

4) Coding Techniques (4)
   The coding techniques that you will be using in this assignment are very important, as you have to demonstrate that you are able to write your own code, methods, and procedures that reflect creative thinking and personal expression. Moreover, you need to be able to demonstrate clearly that you are aware of relevant coding styles and techniques that inform and define your practice.

5) Documentation (4, 5)
   The documentation is a central part of your work, and you need to be thorough in terms of collecting, analysing, and storing information both for your reports and personal logs, but also for your public repository. All content needs to be thoroughly examined, tested, designed, and analysed so that it reflects good organizational and professional skills.

Classification of criteria

(1) Research and Investigation:
The ability to employ appropriate research method(s) to investigate, locate, select, evaluate and utilise data and source material as part of an effective research process.

(2) Critical Context:
Understanding of the historical, critical and theoretical frameworks relevant to the work in particular or the practice as a whole. The ability to locate work within a broader cultural context.

(3) Innovation and Creativity:
Innovation and creativity through practice by the dynamic integration of existing forms, the generation of new forms, or the radical appropriation and utilisation of components or the critical re-evaluation and appropriation of concepts. The demonstration of an experimental approach, risk taking, the speculative use of rational and intuitive thought.

(4) Practical Competence and Realisation:
The ability to realise a project, through the demonstration of an understanding of aims, audience, and context. Responsiveness and effectiveness in the deployment, utilisation and manipulation of appropriate skills, technologies and processes to fit the available resources. The ability to manage the process by which the product of the module is realised. The ability to successfully and appropriately integrate critical context and practical competence into a coherent and legible whole.

(5) Analysis and Critical Evaluation:
Demonstrating an ability for problem analysis, to understand, articulate and interpret the nature of the assignment, its context within the Programme and its broader context. To evaluate work through formative and summative critique. To learn from mistakes and problems and effectively utilise knowledge gained.