Hull Fair Tycoon  
2022-23

Group 3

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# Introduction

Hull Fair Tycoon is a construction and management simulator game that puts players in charge of creating and managing their own version of Hull Fair, the largest travelling fair in Europe. From designing and building the fairground rides and stalls, to hiring staff and managing finances, players will have to balance creativity and business acumen to make their fair a success.

# Section A) Game Design

## Development Roles

James Weller – Sound creation

Ethan Stockton – Sprite creation

Aisha Ferriby – Programming

Dane Gibson – Programming

Sean Ulph – Writing

## A1.2 Novel Design Features

Some novel design feature that could be included into Hull Fair Tycoon would be:

1. Dynamic Weather, have the weather change between multiple states like sunny, rain and windy. This could also affect stuff such as the maintenance of rides and stalls and the player would have to adapt to the circumstances.

2. Rating System, at the end of each level give the player an overall rating based on the success of the fair and possibly include a bonus cash injection to the players next year funds if they manage to reach the highest rating.

3. Mini-games, to keep things interesting there could be minigames given to the player when they want to for example, repair a rollercoaster or restock the food for stalls. This gives the player some extra fun and can also be used to teach them interesting facts about Hull.

4. Tasks, this is for the open phase of the fair and will essentially keep the player on their feet giving out random events like restocking stalls, customer complaints and equipment malfunctions.

5. Government Inspections, once on each “level” the government inspectors will arrive to determine the safety of the fair a few days before it is meant to open. They will then advise what needs to be done to make it safer and if the fair is too dangerous they will have to close some areas if players wish to keep the fair functioning.

## A1.3 Elemental Tetrad

### Narrative

Players will get the chance to step into the shoes of the new person in charge of managing Europe’s biggest fair. They will need to build the most entertaining attractions they can and bring people from all over to experience what they have to offer. At the beginning of the game the player will get to go through a tutorial that shows them the ropes of how the mechanics of the game work and will start off with a limited budget to hire staff and buy rides and attractions. The player must be wary of what they use their money on cause if the public don’t enjoy their fair they could run the risk of being unprofitable or could even end up going bankrupt. As the fair opens to the public the player must stay on top of everything, keeping people entertained and making sure everything stays functioning. The entire game is to be set across a decade of time with the end goal to reach the end and go into retirement, depending on the final rating the player gets could determine how their character ends up ranging from a rough and struggled retirement to a happy and comfortable one. Ultimately, the player wants to aim for the best rating they can get and leave their mark in the carnival world.

### Aesthetics

The game's aesthetics will be split into two sections corresponding to the two different phases of each level: the preparation phase and the open phase.

During the preparation phase, which lasts for the first 3 weeks of each level, the game will have an industrial aesthetic.

The sound design will include various construction noises when building rollercoasters and stalls, and the background music will be a simplistic beat that is still entertaining to listen to.

Visually, the game during this phase will be set during the day, so the map will be well-lit. The player's remaining money and employee expenditure will be visible on the main scene, and there will be two submenus that take the player to menus to hire employees and buy constructions to build for the fair and upgrade. For a better idea of what this interface will look like, please refer to the Appendix A image.

During the open phase, which is the week when the fair is open to the public, the game will have a more fun and vibrant aesthetic.

The sound design will include a mixture of audio containing rollercoaster noises and the noise of crowds of people, ranging from screaming on rollercoasters to indistinguishable talking when they explore the fair.

The background music will be upbeat and give a sense of excitement while matching the setting of being at a fair.

Visually, this phase will be set at night, so the map will be darker, but it will be lit up by the vibrant light of the different constructions the player made.

The user interface will be somewhat like the preparation phase UI, but instead of having a constructions menu, it will be replaced with tasks for the player to complete, such as keeping stock of food for stalls or dealing with customer complaints. For a better idea for what this interface will look like, please refer to the Appendix B image.

### Mechanics

This game will play similarly to other games in its genre where the player can view the map by clicking and dragging it with a mouse and have access to multiple submenus that will allow them to buy stuff such as employees and rides to improve their fair park.

The game will span over 10 different years since the Hull Fair is an annual event and give the player 3 in-game weeks of preparation time to build up their current year’s fair and then 1 ingame week of managing it whilst the attraction is open.

Overall, this gives them 4 in-game weeks for each “level” and their job is to make a successful fair that improves and gets bigger over the years and making sure they don’t go bankrupt. Now we will give a brief overview of some of the features that would be found in the game.

1. Employees, these will be people the player will hire and manage to help run things, there will be multiple roles to fill such as mechanics, vendors, and security to name a few. They will be vital for the construction and maintenance of the fair.

2. Construction, this will give the players the ability to design their own layout and choose which rides or stalls they want to implement into the game. They will have to allocate certain employee roles to build these.

3. Budget, the first year’s budget will be always the same using this the player will build and employ for their fair, depending on how successful it is the next years budget will differentiate ultimately the player will want to work towards a bigger budget so they can expand their fair in the next year.

4. Carry Over, after a year’s fair is complete the player is given the option to store fair equipment like rides and stalls so they can use them for next year although this will come at a financial cost and the more stuff they wish to carry over to the next year the more it will cost them. If they don’t store something it will be sold at a fraction of the cost they bought it and they will have to rebuy it for next year as well if they want to

### Technology

Target Platform

This game will initially be built to run on PC hardware, this allows us to produce the game quicker than if we had multiple platforms in mind. There are plans to release it to consoles such as the Nintendo Switch and Xbox depending on its success and eventually to mobile if the end-product is compatible.

Tools used to make

To produce this game, two pieces of software will be required: Unity and Photoshop. Unity is a popular game engine and a suitable choice for game development, as many game developers have prior experience using it. Therefore, the team can easily move into development without worrying about teaching developers how the engine works. For creating graphics and sprites, Photoshop is an ideal tool as it offers a lot of freedom in design. However, it is a subscription-based software, so depending on the budget, the team could consider using a free alternative such as GIMP.

In terms of hardware, a high-budget computer is not necessary as the game development process is not too demanding. However, it is still essential to have decent hardware to avoid stunting or slowing down the development process. The suggested hardware should include at least a GTX 1060 graphics card and a minimum of 8GB of RAM.

Roles

Chart, timeline

Description automatically generatedFor production there is in total 5 people working on the project divided into initially 2 teams. The first being 2 people who will focus on the creative sides of things such as making sprites and creating the game music. The other 3 people will be the team who focus on coding the mechanics of the game itself in the Unity engine if one team manages to complete their work ahead of schedule they can help the other stay on track assisting where they can.

CreativeTeam

Table

Description automatically generated

Coding Team

Graphical user interface, text

Description automatically generatedTable

Description automatically generated

# Appendices

Instructions for a third party to run the program & any other program documentation/manuals;

Outline plan for marketing — e.g. high concept descriptions, marketing imagery, detailed proposals for developing revenue from the game;

A statement on the ethical and legal issues regarding your project and products: e.g. any licence or copyright issues (of your products, or resources they have used) and about the software use;

The final time plan of the project as completed (e.g. as a Gantt chart or similar);

Time sheets for group members indicating development costs incurred through staff time (assuming industry starting salary of £28,000);

For each group member, a statement (maximum of half an A4 page) summarising their **individual** contribution to the delivered product (software and documentation or other roles), with a link to their portfolio;

UML class/component or similar diagram that describes the game architecture along with a list of who developed which classes/components or subsystems.