RICH PLASTOW

This multiplayer HTML5 **serious game** combines a **custom 3D framework** with an advanced **business simulation,** to provide a fun and social learning tool for **Diageo** staff.

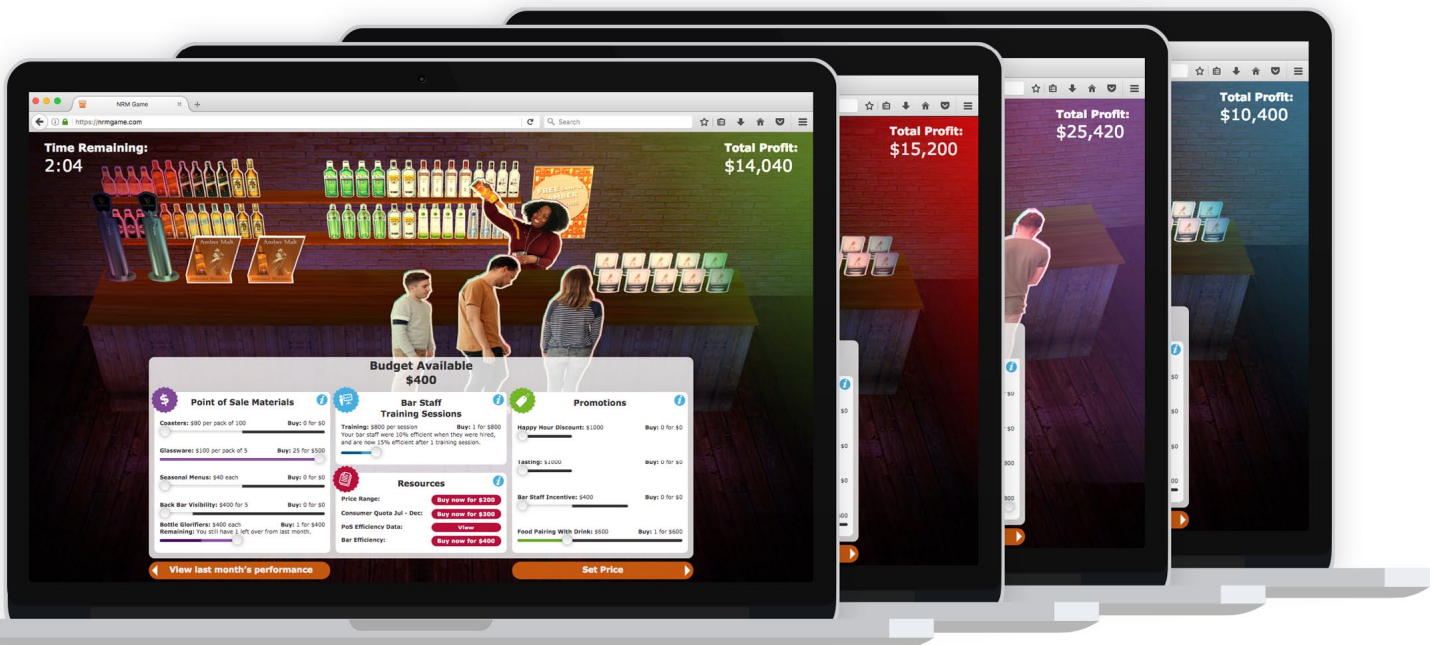|	
CASE STUDY	Bar Sim Game
CLIENT	**Diageo**
LAUNCHED	**May 2017**

SKILLS

HTML5 GAME DEVELOPMENT · SIMULATION DEVELOPMENT · MULTIPLAYER · GAME DESIGN · GRAPHIC DESIGN · UX DESIGN · PHOTOGRAPHY · IIS WINDOWS SERVER · BALSAMIQ · GITHUB · NODE · THREE.JS · JQUERY · MYSQL · PHP · JAVASCRIPT ES6 · HTML · CSS

Bar Sim Game was designed to reinforce learning during a two-day training course. It's played by four teams of three people, where each team has a laptop and controls the marketing budget of a **simulated bar**. The goal is to maximise end-of-year profit, with help from a facilitator who can monitor their progress in real time.

An outline for the game mechanic and learning objectives had been agreed before I came on board. I produced a detailed **functional spec** and **wireframes**, wrote all of the code, and worked with the client's art director on graphic design and photography.

I created a custom framework on top of **Three.js**, which allowed us to create the 3D bar scene very quickly, and add real photos of Diageo's staff drinking at the bar! I also built a **custom business simulation**, which models bar staff and customer behavior, footfall and stock levels, to realistically calculate sales and profit.

Developed during this project

FLATLAND	For high performance **animated 3D scenes**, with optional **physics**, **shadows** and **focus**
SIMULATION	Each minute is simulated, using a repeatable sequence of **seeded random numbers**
DUMPSTA	An **ASCII interface** helps visualise and balance the game's **simulation** dynamically
ZIPGRADE	**Automated deployment** to staging and production servers, using **GitHub webhooks**
OOMAKE	Transpilation, concatenation and minification of **JavaScript 2015 (ES6)** source code
ES-SWITCH	Switch between **source** ES6, **concatenated** ES6, **transpiled** ES5 and **minified** ES5

Find out more…

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