

Introduction to JavaScript – Term Project

Introduction

The goal of this project is to allow you to express your creativity in game design, problem-solving, and story-telling while building an application that incorporates many of the elements discussed in TECH276 Fundamentals of JavaScript.

This project will require you to design a game made up of a series of web pages with multiple “paths” through to completion. The paths, which will be separate web pages, will be presented as a series of decision points to which the player of the game must respond. Based on the player responses the game will open appropriate web pages with additional decision points. An example might be if the player chooses to take a walk in the woods, they next page might ask if they want to climb a tree or swim in a nearby pond and depending on their response open the appropriate web page.

The game will include the following elements:

- 1) An animated or video opening sequence (optionally with sound) controlled via JavaScript;
- 2) A chance to enter a player’s name (which will be remembered and used throughout the game);
- 3) Some sort of player status indicator (energy level, cash-on-hand, or some other element) which will be updated as the game progresses;
- 4) A series of decision points which lead to different outcomes depending on the choices made;
- 5) A series of web pages that use cookies to display and update the player name and status;
- 6) An animated or video closing sequence based on the result of the choices (a win or loss screen).

The game design should provide the player with at least four decisions (which lead to different pages depending on the choice made) and at least two different outcomes of the game (for example: great riches or the poor house) based on those decisions. Several decisions may lead to the same outcome (for example running out of money because the player either spent it all, or gambled it all away) but there should be at least two possible outcomes. What the game is about is entirely up to you, but it should be designed as some sort of adventure or role-playing game where the player controls their destiny (to a point – this is just an introductory course).

Game Deliverables:

For this project, you are expected to provide four different items to be graded:

- 1) The first item to be delivered is a project proposal. This proposal should be an approximately one half page typed proposal for the game. Since there are still many parts of JavaScript to be discussed (like animated pages, using cookies to remember data across several web pages, and making pages interactive with form elements) the proposal is purely conceptual. What do you want your program to look like, what kind of adventure will the player take in your game, what does the player have to do to “win” the game? Those sorts of questions should be addressed. This portion of the project is worth 25 points.
- 2) The second item to be delivered is a flowchart showing the key components of the game, and how they will be structured. This will not require specific code (since we have not talked about

all of the elements yet) but should clearly show the decision points and what the result is of each decision (which may be to loop back to some other part of the adventure, proceed to another decision point, or play the conclusion animation). Although this course is not about flowcharting, and does not require you to buy flowcharting software, you may want to investigate options for creating attractive and professional looking flowcharts since the ability to express your ideas through symbols will prove useful in this class and other programming classes. A free web-based flowcharting option will be discussed in class. A limited example of what this might look like is presented at the end of the project description. This flow chart will be worth 50 points.

- 3) The third item to be delivered is a finished copy of your game. This will be submitted via Blackboard, and you should have a copy for your presentation (deliverable 4). The game should provide error-free game play with no infinite-loops (or annoyingly similar loops with too many iterations), a clear set of controls for the player, a status item that updates as the game is played, and some level of enjoyment while playing the game. This part of the project is worth 100 points.
- 4) The final item to be delivered is a presentation of your game to the rest of the class. This presentation will allow you to show off your work and talk about the challenges you faced and how they were solved. This part of the project is worth 25 points.

The date for each deliverable is listed in the course calendar, with the final presentation taking place during our scheduled final exam period. The proposal and flowchart will be turned in electronically as a Word document or PDF.

Good luck, and have fun. Hopefully your game will show-off your creativity and programming prowess. If you enjoy the game, there is a much better chance that I will also enjoy it.

Sample Flow Chart For Final Project
(A Single Path)

