

## Final Project

## [Object-Oriented Inheritance]

*Be sure to use class objects and inheritance when you make your game.*

### 1) CYOA

Choose Your Own Adventure story with at least 18 nodes (CYOA “pages”).

Your character should have at least three stats, such as “vitality” and “strength”, or whatever is appropriate to your story. These stats would be stored in global variables.

At least four of the nodes should feature randomization, preferably involving at least one of the three stats. Be creative in the choices you have in your story.

### 2) Camel

You are traveling through the desert on a camel being chased by headhunting pygmies. This game is about balancing resources, “x, y, z” variables. To get out of the desert and escape the pygmies, you have “x” miles to travel, with “y” water in canteen, and the pygmies are “z” miles behind you.

Each turn the player chooses to travel Fast, Medium, or Slow to escape the desert and make distance from the pygmies. The faster they move the more distance they gain on the pygmies, but the more thirsty they get, and will need to drink from their canteen. If the player needs to drink and there’s no water left in the canteen their health decreases and their movement decreases. If their health gets too low they die of thirst.

Occasionally, randomly, the player will stumble onto an oasis where they can refill their canteen and refresh. The player must be diligent with their water so to escape the desert and the headhunting pygmies.

This game is mainly driven by a while loop that loops until the player is out of the desert or dead. The original version of this game comes from "101 BASIC Computer Games" by David Ahl, see <https://github.com/lwiest/BASICCompiler/blob/master/samples/CAMEL.BAS>

### 3) Star Trek

Maneuver the USS Enterprise on a grid to battle 4 or so Klingon spaceships. Each turn the player sees a grid display showing where the Enterprise is and where the Klingons are.

As commander of the Enterprise chose a direction to move and a speed.

You may also choose to fire phasers, photon torpedoes, or warp. Phasers are more effective when closer to the enemy. Torpedoes are always effective but limited in supply.

Klingon ships fire back with phasers doing damage to the Enterprise’s shields.

Running into Klingons destroys the Klingon but does considerable damage to the Enterprise.

Destroy all four Klingons without being destroyed.

Enterprise may warp to randomly be repositioned on the grid.

This game is mainly driven by a loop that repeats until the player has destroyed the Klingons or is eliminated. This game is best programmed utilizing Arrays. The original version of this game comes from "101 BASIC Computer Games" by David Ahl, see <https://github.com/lwiest/BASICCompiler/blob/master/samples/STARTREK.BAS>