

Project: Adventure Project

Name: Blake Collins

Major: Computer Science

Degree: Bachelor of Science for Computer Science

Advisor: Professor Paul West

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Statement of Purpose

I wished to make a video game that was brief but engaging to remedy the problem that I saw with many so-called “free” games on the market, in that they are colorful and lively, but are brain melting in their design, that dulls the imagination and slows the mind.

Research and background

I have come from a history of playing a lot of edutainment games, each one encouraging basic problem-solving skills and helping with my education, as well as the Choose Your Own Adventure style series that encourages multiple read-throughs by promising different results for many different choices and stirred the imagination with evocative storytelling that wasn't afraid to get dark and dire if it needed to. As someone who is an avid gamer, reader and amateur writer, I have found some issue with the free game market that is made available to most people who are not willing to dig, as they are mind numbing and often have waiting times that can be purchased past with exclusive currency that uses real money. I wish to provide a brief but thought stirring alternative, that takes people on a brief journey and challenges them to get past small and simple puzzles, in order to test their reading comprehension and awareness. To do this, I have done research and have used the nCurses library to attempt to make my vision a reality.

Languages, software and hardware

For Languages, this project uses the C++ language and for software, it uses the nCurses library and standard executables available on Linux systems. It can be run on any hardware with a monitor, computer and keyboard.

Implementation Description and explanation

This program was made into the framework of a Choose Your Own Adventure style book, which an escape room theme, using expressive vocabulary to convey meaningful descriptions to better stir the imagination as well as to hype them up for puzzles.

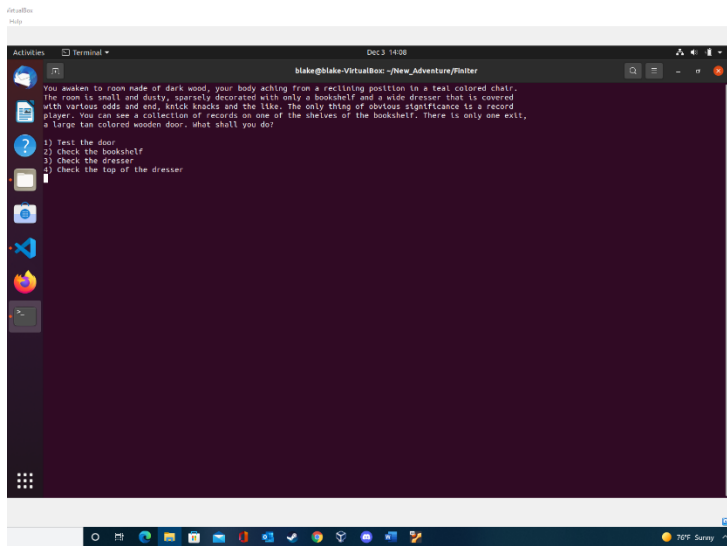


Figure 1

As shown in figure 1, this program operates via multiple choice systems which lead to different loops in the code.

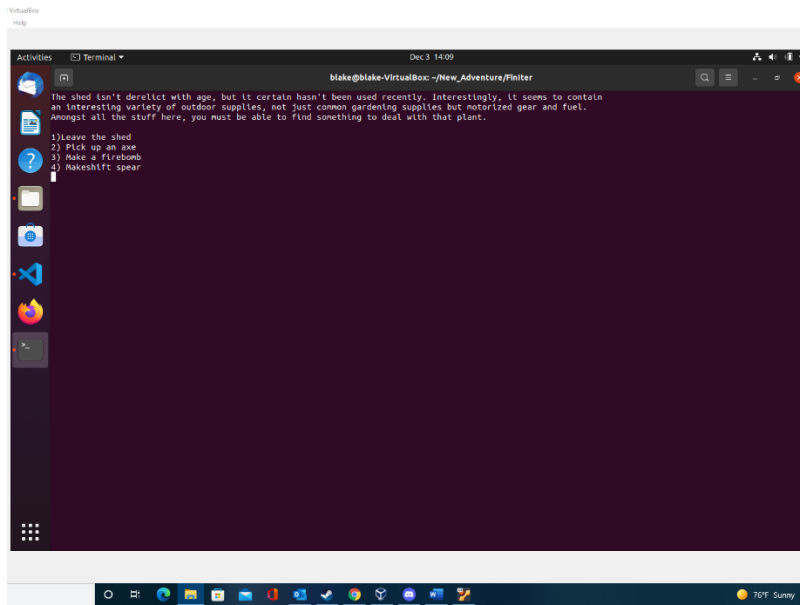


Figure 2

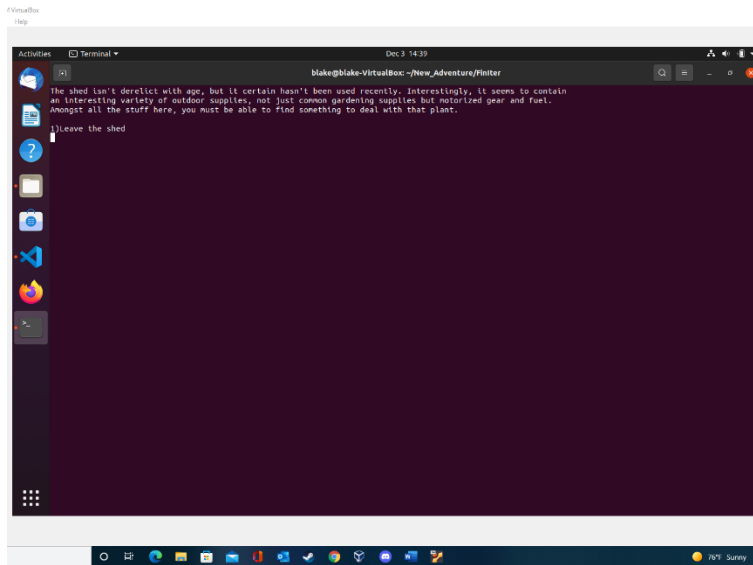


Figure 3

Figure 2 and 3 shows adding and removing options based on the previous options selected, for example, 2, 3 and 4 are gone from figure 3, because their values were made true when they were done once, to symbolize that it could not be done again, or that it was not relevant to do again.

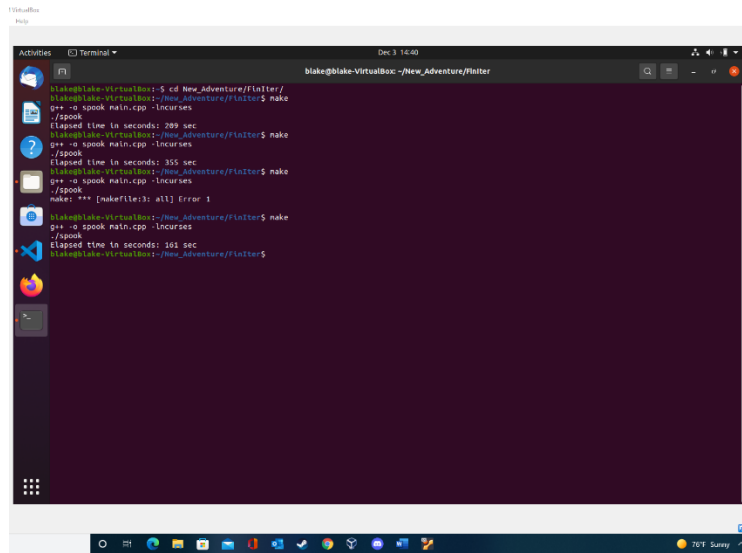


Figure 4

As shown in figure 4, it gives you how long it took to complete after the code's conclusion, giving re-playability even if you have seen the puzzle once before.

Link to source: https://github.com/BACollins96/Adventure_Project

Project Requirements

Series of deliverables was sent during implementation as well as the testing of the code via manual testing and automatic testing via the gtest test suite and the defense document and slides

Test Plan

Testing of the code was done via manual testing and automatic testing via the gtest test suite

Test Results

One of the manual test did result in a small error where something was mislabeled and I had to go and fix it.

Challenges overcome

As a single producer of this code, it took a surprising amount of storyboarding and effort to put this project together, and the code took out to be about 4000 lines of code, which was incredible easy to lose information in. In addition to how much coding and writing it took, the testing

process involved having to learn how to install gtest, make a private testing suite and a conversion of previously user dependent code to be machine testable.

Future Enhancements

For future works, there many way to build upon this work. As mentioned previously, there can be efforts built to make it more of an edutainment game with emphasis given on increasing understanding of the English language as well as more complex words and sentence structure.

This can be more constructed more linearly by adding on to the previous iterations further, more rooms, more puzzles, more stories and themes to stir the minds of people.