



Assignment 3

Due Nov 1, 2021 by 11:59pm

Points 10

Submitting a file upload

File Types zip, cpp, and h

Available Oct 18, 2021 at 12am - Nov 15, 2021 at 11:59pm

This assignment was locked Nov 15, 2021 at 11:59pm.

Please submit a single .zip file, named [NetID]_asg3.zip, where [NetID] is your NetID (the username you use to log in to Canvas). Inside the zip, there should be nine files: main.cpp, RockPile.cpp, RockPile.h, RockMaker.h, Rock.h, Ruby.h, Gold.h, Diamond.h, and Sandstone.h.

Full details are in the pdf: [assignment 3.pdf](#) 

[main.cpp](#) 

[RockMaker.h](#) 

Program Summary

In this program, you will create a program to simulate ``panning" for valuable stones. The primary focus is to get practice managing pointers in a couple of lists, and using inheritance and polymorphism to simplify the management. In order to allow you to focus on the list and pointer management, we will provide \textit{most} of a \verb|main.cpp|. You'll just need to fill in a couple cases inside \verb|main.cpp|.

There are four kinds of Rock in the program - Ruby, Gold, Diamond, and regular old Sandstone. This program allows you to collect unidentified rocks, inspect them, and keep any sufficiently large Rock of a given type (except for Sandstone).

Rubric

Item	Points
Program builds and runs without compile errors	2
Rock has the specified functions, including pure virtual function Inspect	1
Gold, Ruby, Diamond, and Sandstone are all subclasses of Rock, and correctly implement their versions of Inspect()	2
RockPile can Add and Remove Rock* without crashing	2
RockPile Grows and Shrinks at appropriate times, without crashing	2
The ROCK and INSPECT cases of main.cpp have been correctly filled in to get a new rock and inspect a rock, respectively	1
Total	10

Submission

✓ **Submitted!**

Nov 1, 2021 at 4:04pm

[Submission Details](#)

[Download wzhi3_as3-1.zip](#)

Grade: 9.5 (10 pts possible)

Graded Anonymously: no

Comments:

-0.5: Program crashes if user tries to inspect from an empty pile. Total: 9.5 / 10

Luke Swanson, Dec 2, 2021 at 1:27am