



Galois' Galaxy



Rachel Castro

- + Compsci + Data Science at the Colorado School of Mines
- + Passionate about pure math and problem solving
- + New to compsci, but eager to expand knowledge and build new projects
- + First Hackathon!

Why Group Theory?



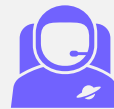
The study of symmetry and patterns



Widely applicable in fields from compsci to chemistry



Describes structure of fundamental objects



It is super intuitive—anyone can learn!

Initial Plan: Barnyard Game



SIX LEVELS, EACH FOCUSING
ON A BASIC CONCEPT OF
GROUP THEORY



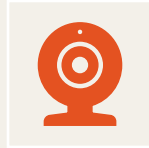
IMPLEMENTED BY A TEAM OF
FOUR USING GDEVELOP 5



Level 1: Modular
Arithmetic and Clocks



Level 2: Rectangular
Symmetry on a Door



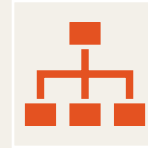
Level 3: Isomorphism
Between Door and
Light Switch



Level 4: Cyclic Group
of a Windmill



Level 5: Permutations
of Animals



Level 6: Putting it All
Together: Subgroups

Issues

Gdevelop didn't have the logic we needed



Godot was too complex to learn in the time given

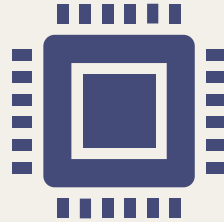


None of us had any game dev experience

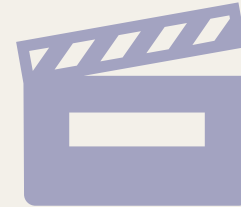
Solution



I have experience in C++, so I did the best I could printing to the terminal.



It is not the polished game I imagined, but I hope to learn more about game dev!



My goal is to remake this at a future Hackathon with more dev knowledge.