Escape room

Escape CS

Overview

Age group	16+
No. of participants	1+
Subject matter	Computer Science
Keywords	Programming, Abstraction
Playing time	60
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In a few words

This escape room is an online computer science escape room. Players must crack a code by solving a series of interlocked puzzles to restore the website to a working state. Each puzzle covers a different era of computer programming and must be solved within a time limit.

Learning outcomes

1. Improve problem-solving skills.
2. Exposure to the varied styles of programming over the years.
3. Working under time pressure.

Use scenario

This escape room has been developed for computer science labs with access to computers, and the internet is necessary. Groups can be solo or 2-3 sharing. A teacher will direct the class to a website noting that it has been hacked, and maybe someone in the class could help her solve the problems so that they may continue with their subject material.

Gameflow

Intro Homepage → 1 Logic → 2 Binary → 3 Assembly → 4 C → 5 Java
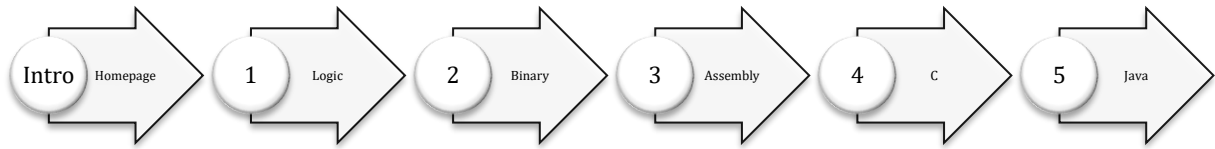
Phase	Duration	Description	Materials
1	5'	**Introduction.** The script introduces the subject and directs them to learn more on the website.	Script
2	10'	**Discovery.** Players move around the website and identify the first clues	Website
3	40	**Problem Solving.** Each puzzle has clues leading to the next.	Website
4	5	**Wrap up.** Enter Finishing code and debrief class.	Website

Escape room set-up

Escape room materials

Website Address

Room equipment

Computer & Internet Connection

Room set-up

N/A

Room reboot

Log out and log back in.

Escape room in action

Starting the escape room

The teacher should ask the players if they have done an escape room before and explain that players must work together to solve a series of puzzles. Players should be encouraged to explore and read the websites clues and information thoroughly.

The teacher should introduce how the puzzles link from one to another.

Finally, the teacher can introduce the escape room with the following message:

"*Today, we are learning about the low level and high-level programming languages and the concept of hardware abstraction. To get us started, we will be using this great website that gives some great information. Unfortunately, there seem to be some issues with it. It looks like someone has hacked it. Maybe you guys could see if you could sort it out il check back in an hour.*"

Playing the escape room

The teacher will answer questions and assist with hints and clues as needed.

Debriefing

Ensure that everyone knows what the answers were if they failed to break the puzzles in time. Facilitate a team discussion and reflect with players on their views and experiences of playing the game and their experience and knowledge of the subject matter. Discuss what roles the individuals played and what type of puzzles each player enjoyed most. Encourage players to give feedback – what puzzles did they most enjoy, what worked and what did not, what did they learn?