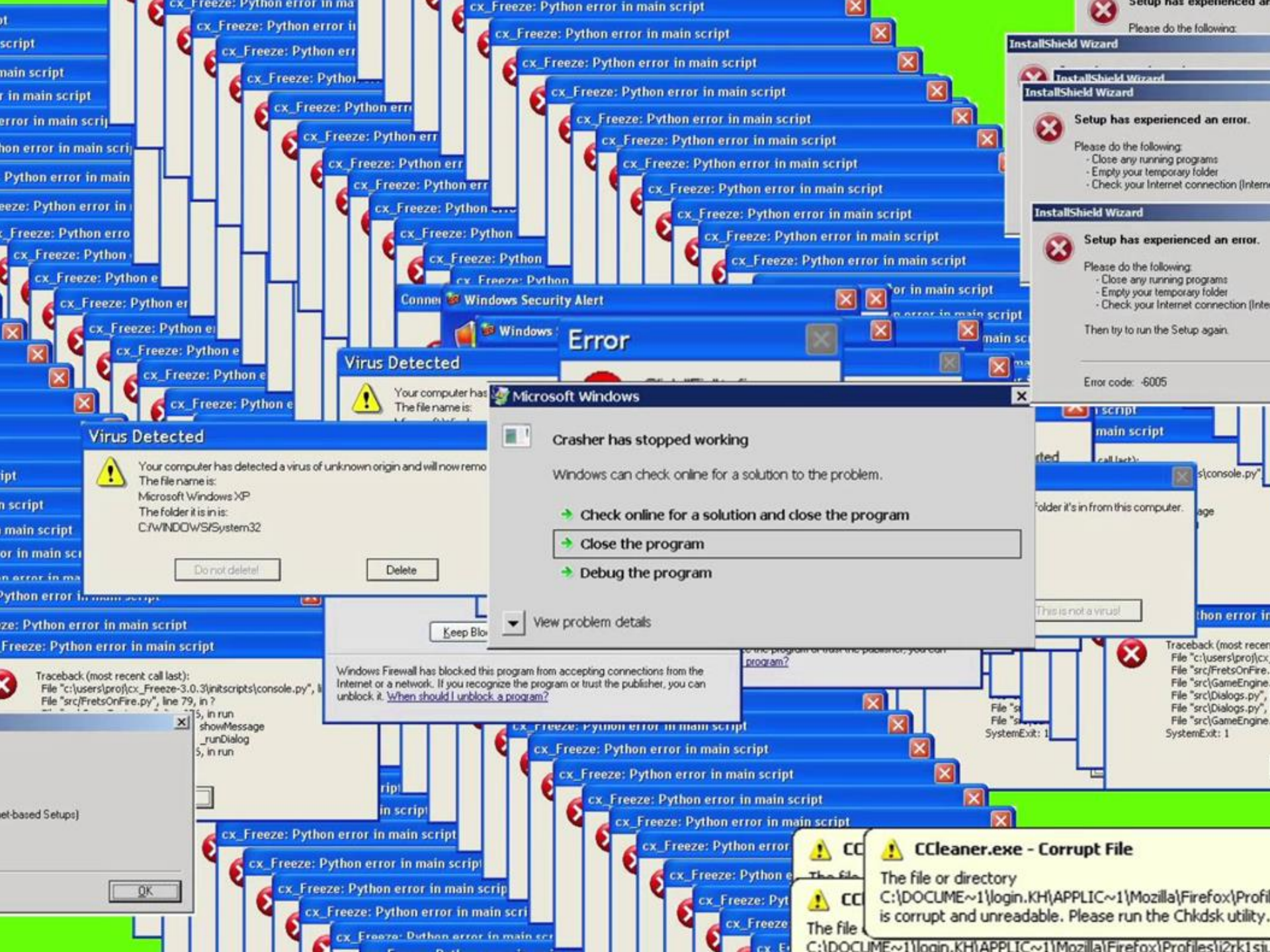# Overview of Project DigiSafe

Software Engineering COMP 4110
University of Massachusetts Lowell
Fall 2019

Customer: 7-8 year old children, parents, teachers

Instructor: Dr. James Daly*

*Please direct all inquiries to the instructor.

cx_Freeze: Python error in main script

InstallShield Wizard

Setup has experienced an error.

Please do the following:
- Close any running programs
- Empty your temporary folder
- Check your Internet connection (Inte

Then try to run the Setup again.

Error code: -6005

Virus Detected

Your computer has detected a virus of unknown origin and will now remo
The file name is:
Microsoft Windows XP
The folder it is in is:
C:/WINDOWS/System32

Do not delete!   Delete

Windows Security Alert

Windows Firewall has blocked this program from accepting connections from the Internet or a network. If you recognize the program or trust the publisher, you can unblock it. When should I unblock a program?

Error

Microsoft Windows

Crasher has stopped working

Windows can check online for a solution to the problem.

→ Check online for a solution and close the program

→ Close the program

→ Debug the program

View problem details

Folder it's in from this computer.

This is not a virus!

Traceback (most recent call last):
File "c:\users\prof\cx_Freeze-3.0.3\initscripts\console.py", li
File "src/FretsOnFire.py", line 79, in ?
, in run
showMessage
_runDialog
, in run

et-based Setups)

OK

Traceback (most recen
File "c:\users\prof\cx
File "src/FretsOnFire.
File "src\GameEngine
File "src\Dialogs.py",
File "src\Dialogs.py",
File "src\GameEngine
SystemExit: 1

CCleaner.exe - Corrupt File

The file or directory
C:\DOCUME~1\login.KH\APPLIC~1\Mozilla\Firefox\Profil
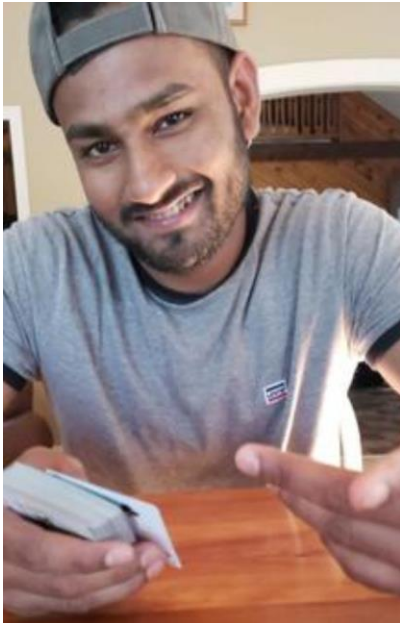is corrupt and unreadable. Please run the Chkdsk utility.

The file
C:\DOCUME~1\login.KH\APPLIC~1\Mozilla\Firefox\Profiles\i2rk1s

DigiSafe Project Team

Project Manager:	Project Facilitator:	Customer Liaison:	Configuration Manager:
Parthey Khanderia	Sophie Hoelzel	Julie Chou	Craig Valenti

Project Overview

Motivation

> ➢ Only 45% of U.S. High Schools teach Computer Science as part of the K12-Education system [1]
> ➢ too few resources (instructors, hardware)

DigiSafe provides…

> ➢ Education in Digital Safety
> ➢ A storyline adventure, proceed by solving questions
> ➢ Child adequate stories and simple examples

Code.org: Nine Policy Ideas to Make Computer Science Fundamental to K–12 Education. https://code.org/files/Making_CS_Fundamental.pdf
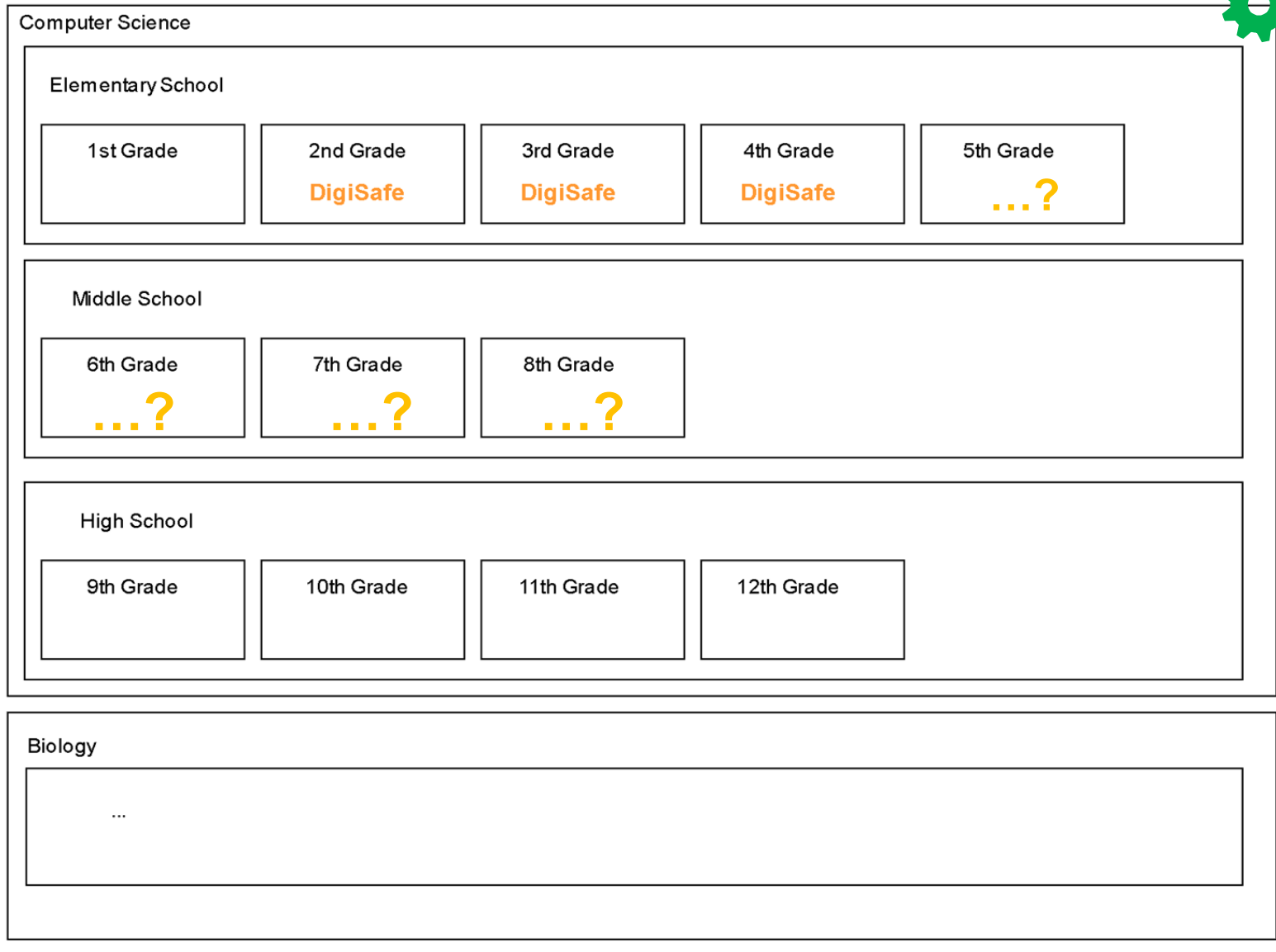
Fig.1: DigiSafe as part of the Education System

Domain Research

Investigated Domain

➢ Investigated K-12 education system & MDOE academic
   standards
➢ lack in Computer Science in elementary school
➢ Domain knowledge in how children learn, incentives

Project Constraints

➢ Accessible via Internet Website, requires keyboard & mouse
➢ low level of difficulty
➢ does not save progress, no login

Overview of Features

Choose Avatar

- ➤ 5 Avatar selection options
- ➤ Avatar presents and guides through scenarios
- ➤ Different facial expressions

Choose Lesson

- ➤ 8 Lessons available
- ➤ One lesson provides 10 pictorial scenarios with questions
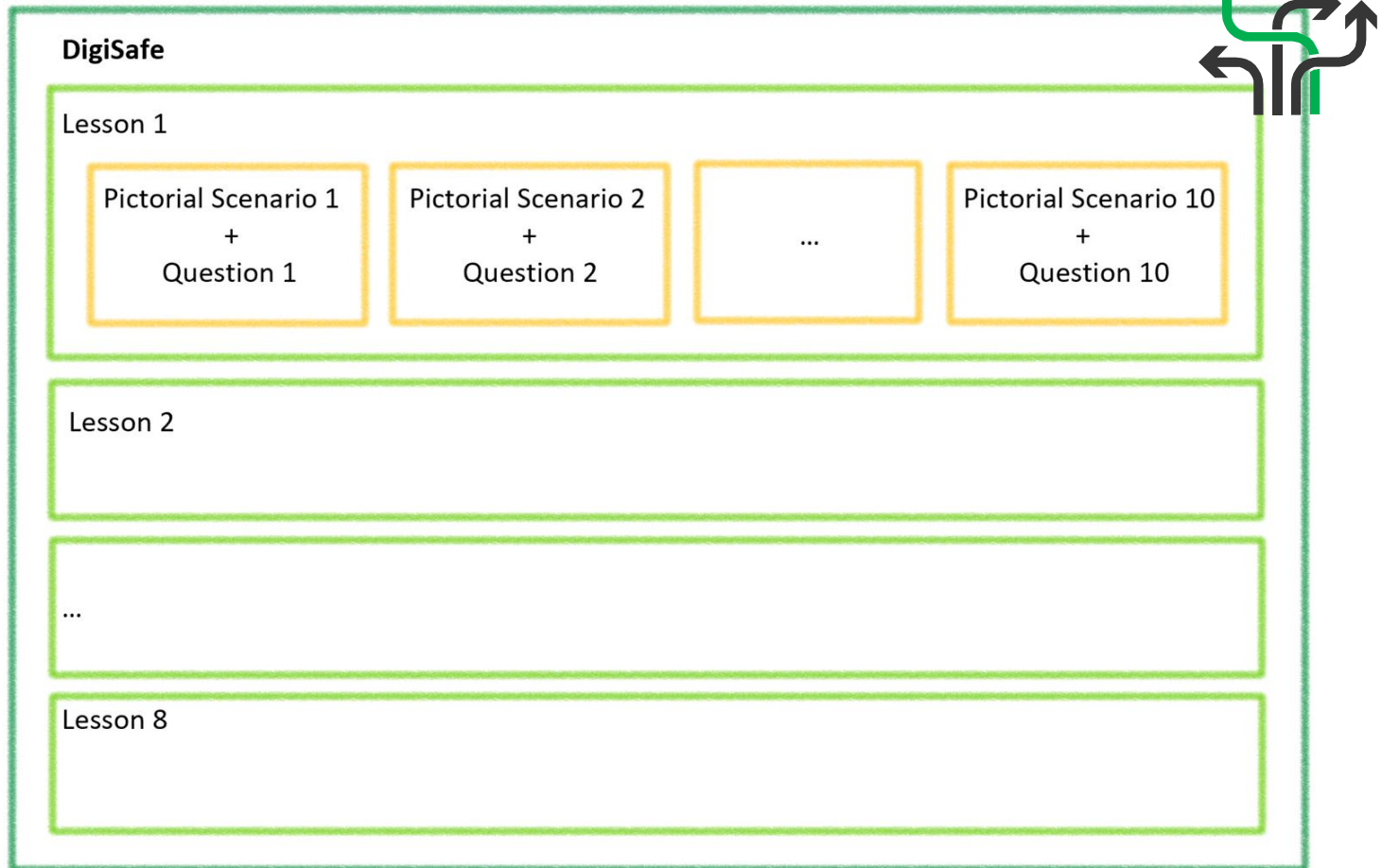
Overview of Features

Fig.2: DigiSafe Game Structure

What's novel

Education

➢ Designed to be part of the education system K-12 education system
➢ Specifically tailored to the necessary knowledge for safe internet activities
➢ Enhanced and reinvorced learning experience due to feedback

Game Experience

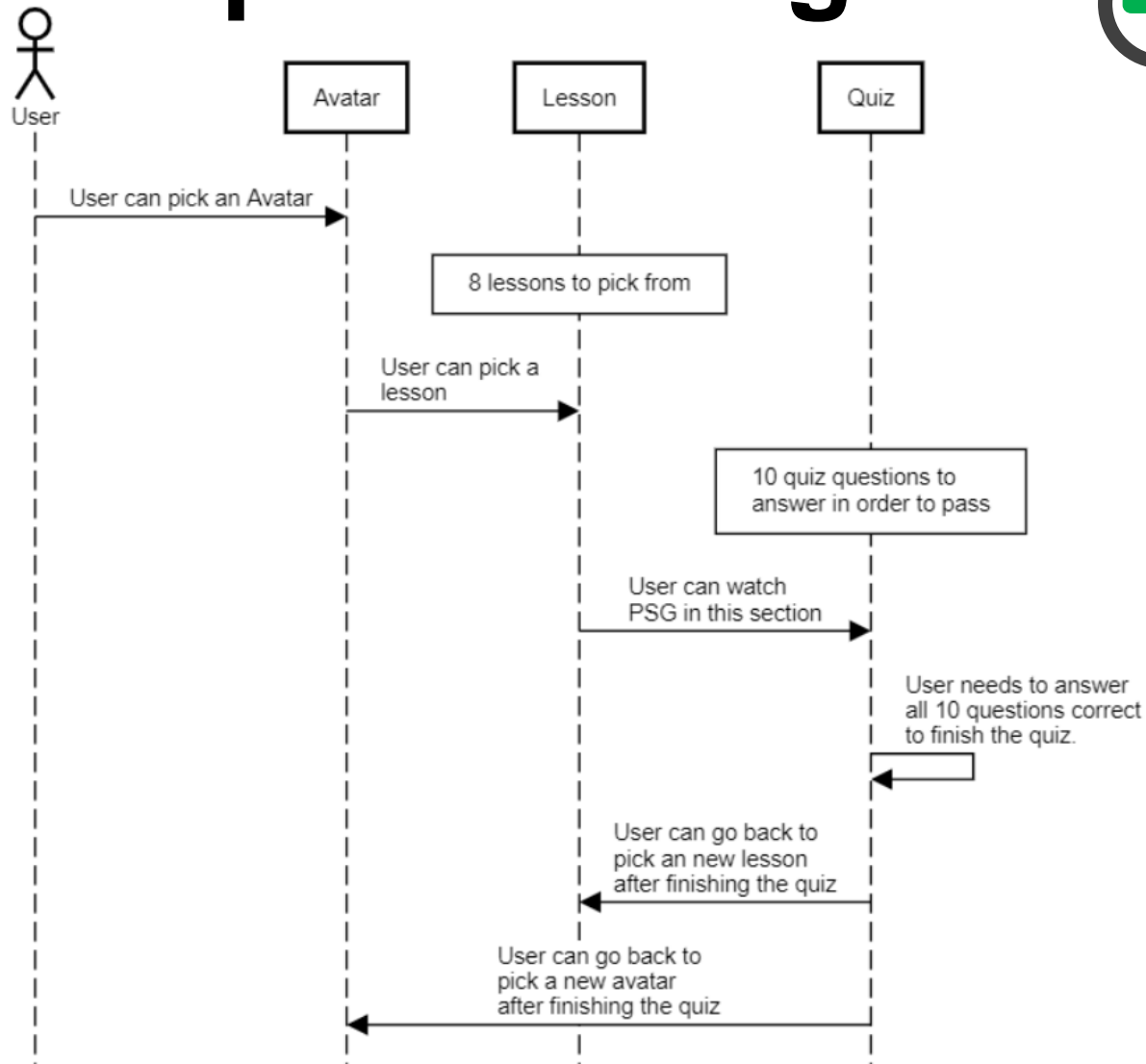➢ Relatable stories facilitate remembering the information
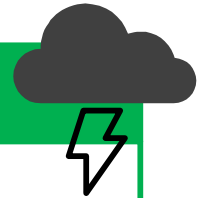
Sequence Diagram

Fig. 3: DigiSafe Sequence Diagram

Contemplations

Decisions & Problem

➢ Github experience
➢ Communication channels
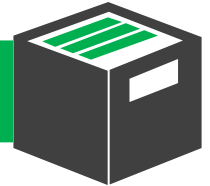➢ Multiple documents

Further Development

➢ Add Avatar Customization
➢ Complete Avatar and Lesson implementation
➢ Different levels in difficulty, more content for more age groups
➢ Save progress

Resources

Languages & Technologies

- Language: Javascript with ES6
- Frameworks: React.js with Material UI
- Runtime Environment: Node.js
- Hosting: Heroku

Part III: Demonstration

Acknowledgements

We gratefully acknowledge and appreciate the participation, assistance, advising of...

- Heroku for hosting DigiSafe
- Professor Daly
- Feedback of students of this class