DISCLOSE Project

Final Presentation - Studio 2

Introduction

Digital Forensics Students - Year II

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Agenda

- Project Overview
- Achievements
- Teamwork
- Challenges
- Main lessons learned

Project Overview: Aim & Objectives

The project objective is to create practical challenges for educational purposes in the Digital Forensics field, with three difficulty levels.

Our project aim is to better our understanding in our field and get more practical experience.

Subjects covered:

- Steganography
- Cryptography
- Photo Forensics

Steganography: Example 1

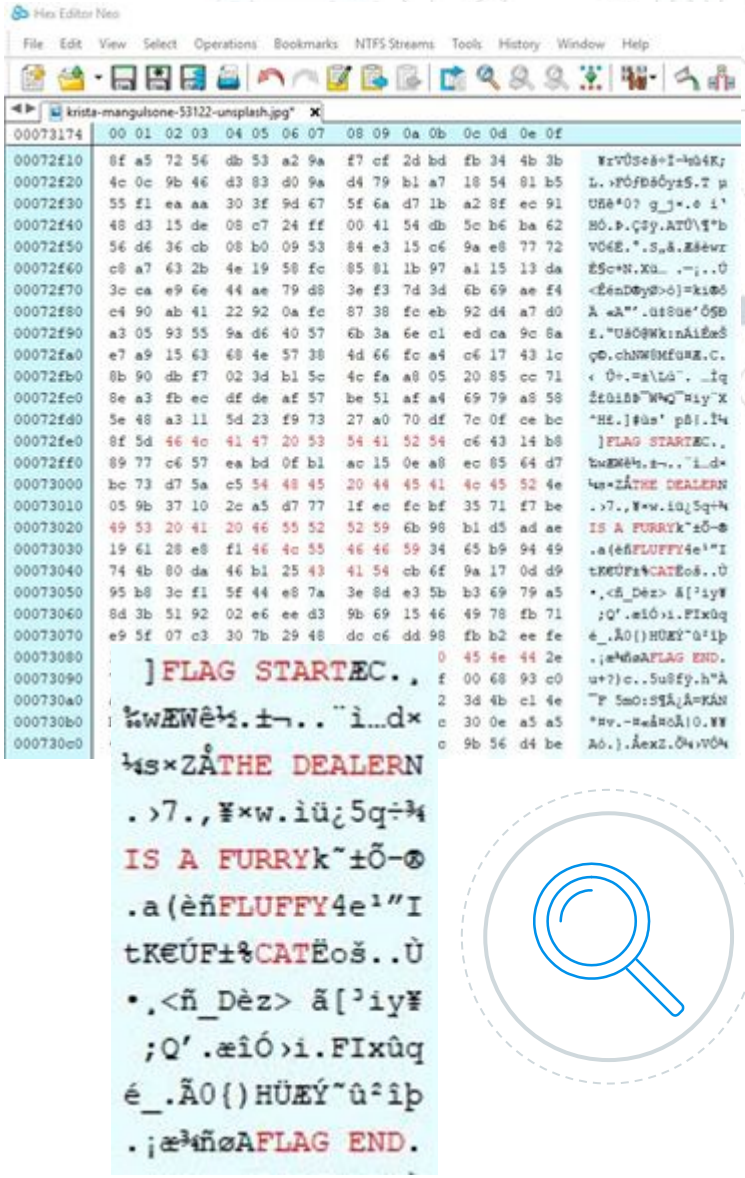

Photo by Krista Mangulsone on Unsplash

Cryptography: Example 2

Secret Key:
M4rg4r3TAtw00d

```
1  EnCt290235f18df140f649eefc66f258499e2e92fe91990235f1
2  216II5lqeXemx5dv9IP16ReTkJi/4I9MWI/dzKL9qUt1vYPhZUqP
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5  DXCxVwZFph3BGsC1boVmZpYMpaEhX8wGox+aXuC35OZH9ufpe%FG
6  DXCxVwZFph3BGsC1boVmZpYMpaEhXDoIgkH9CQeMo=EbyYLiJeLe
7  CPvKpASq2wNVC+dM0ETqMSk66KOToScn3RsoT1GcHE2CuVRGWVS5
8  awdjdOP09GVjHNJfDFSRRop94OVv'8wy8bfMM4dZfEMVtScid8M5
9  vR161A6lMMRSk=IlWg28NdU3D32zeLCeV/BlpZm4zOlsOQYLxGpR
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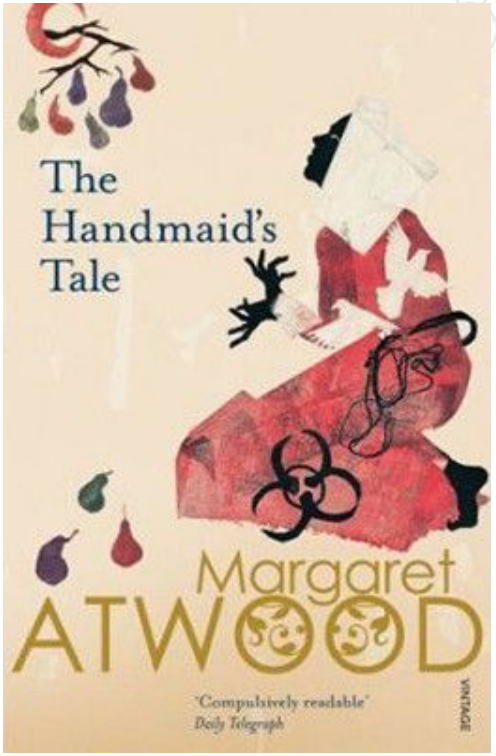


Photo source: https://www.waterstones.com/

Photo Forensics: Example 3

Photos by Unsplash

Guided Solutions for Educators

Answer Sheet Level 2 - Photo Forensics

The Challenge

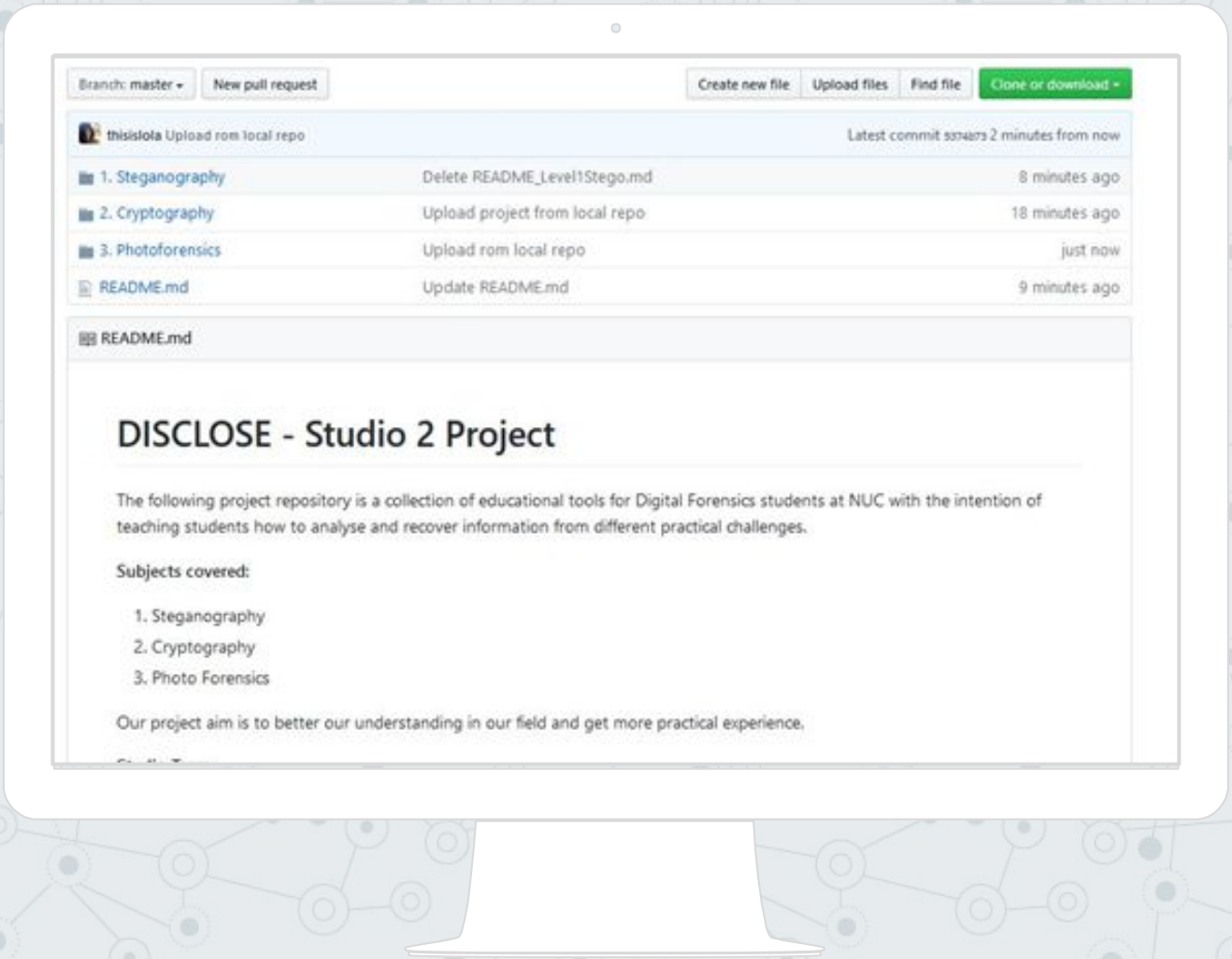
A suspect's alibi puts them in [redacted] (location) at the time of the crime. Pictures were found in the suspect's seized phone. Determine is the pictures in question create a timeline supporting the alibi or otherwise.

How To: Creation of the challenge

The pictures include location coordinates in the [redacted] (location). The pictures match the seized phone and…

These are the correct GPS locations:

Original GPS	Location	Device	EXIF Data
45678903	Mi Casa 123, Tucasa	iPhone 9	Yes
454545454	Mi Casa 123, Tucasa	iPhone 9	Yes
45612121203	Mi Casa 123, Tucasa	iPhone 9	Yes
45232303	Mi Casa 123, Tucasa	iPhone 9	Yes
45678903	Mi Casa 123, Tucasa	iPhone 9	Yes



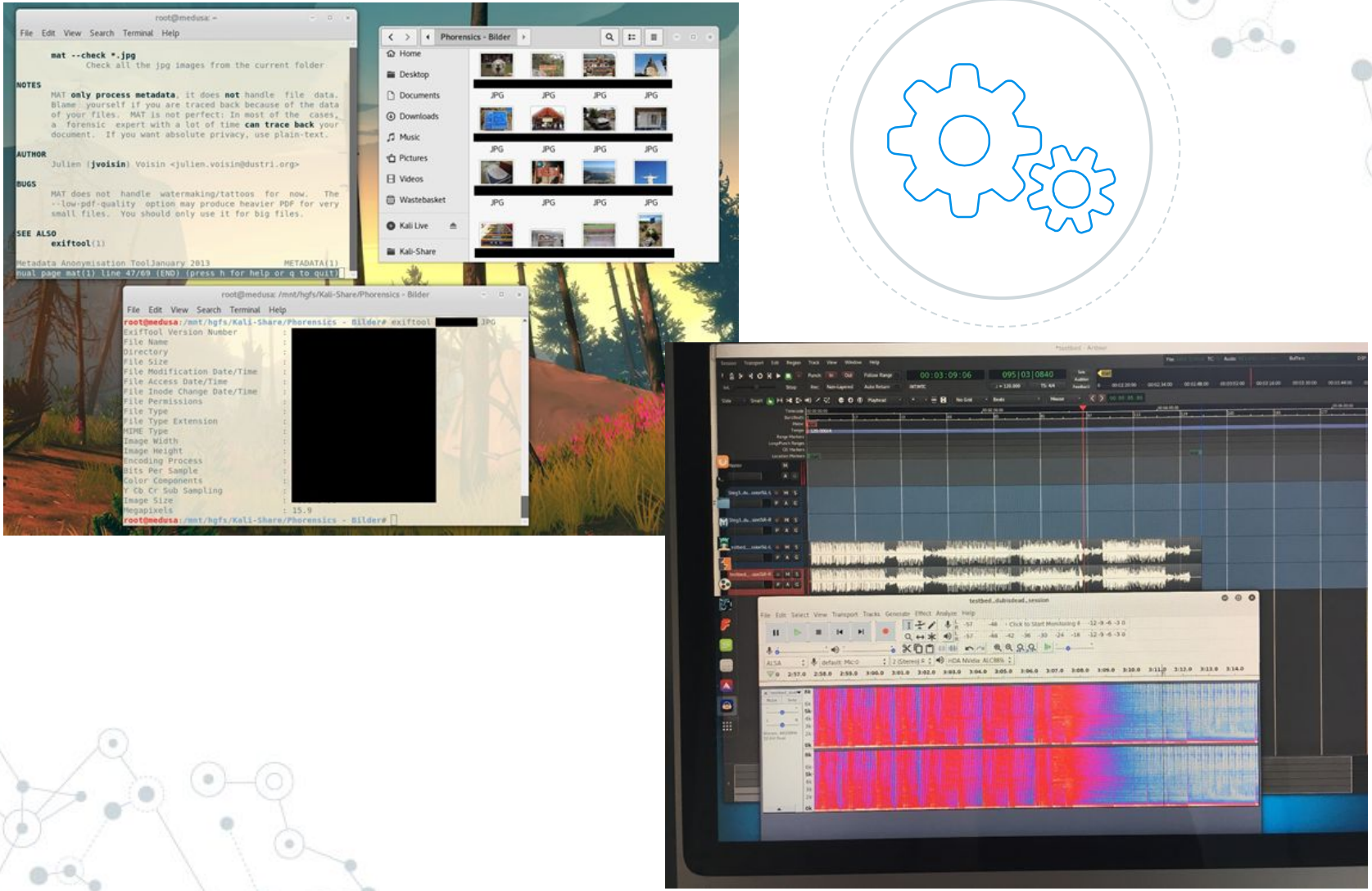
Github

https://github.com/thisislola/DISCLOSE

Achievements

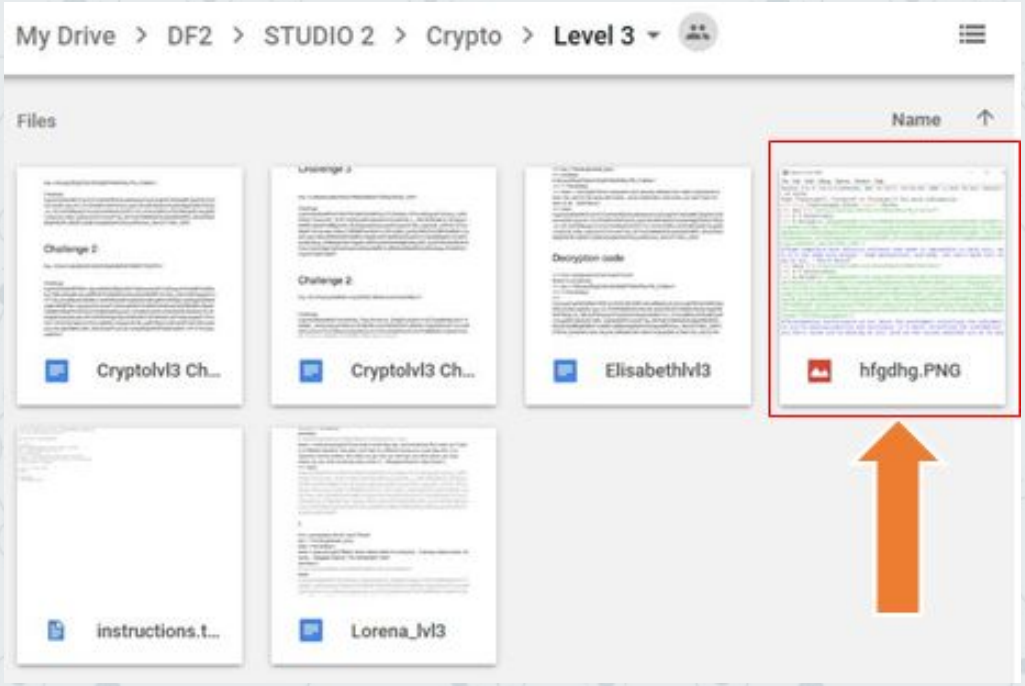
- We managed to reach our goal in creating the challenges.
- We tested the quality of our challenges with an external tester.
- We learned how to use the tools to cover (Anti-forensics) and uncover the challenges (Forensics).
- We learned how to better plan a project and work together as a team.

Achievement Example



Teamwork

- New team member in January
- Great group dynamics
- We divided some tasks, while the others were performed as a team
- We met both on Skype and on campus regularly, weekly at a minimum
- We gave each other feedback
- Tools used for project planning were Skype, Github, and Google Drive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Cryptolvl3 Ch...
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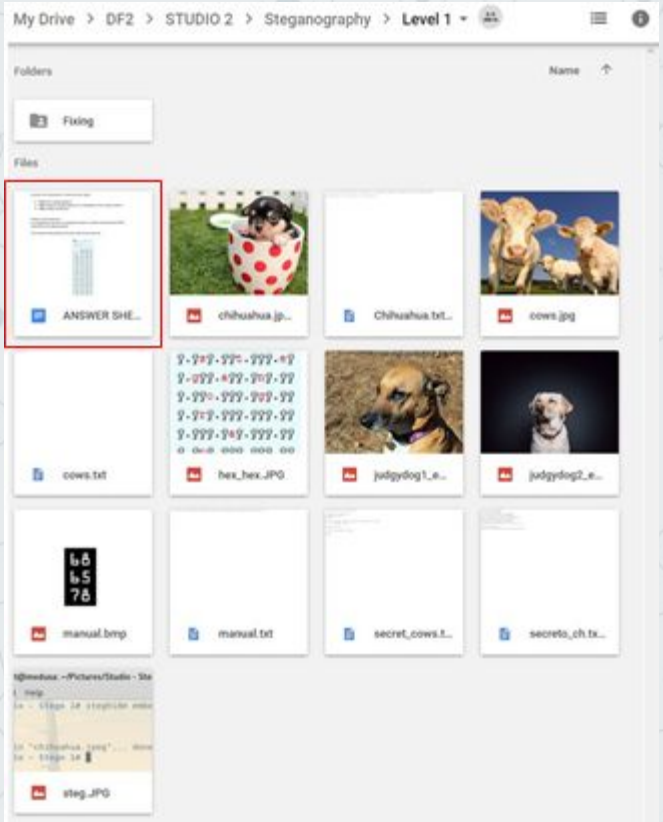
instructions.t...
Lorena_lvl3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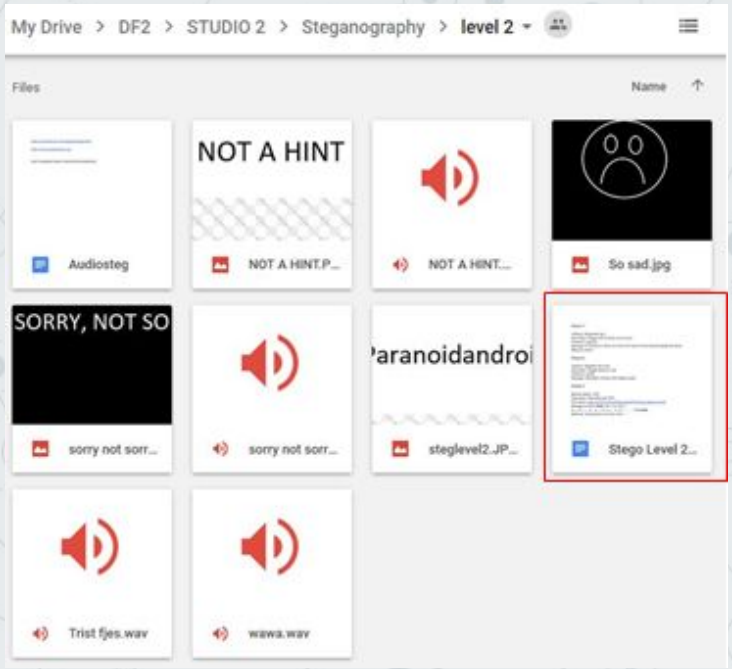
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Files
Name
Audiosteg
NOT A HINT
NOT A HINT.P...
NOT A HINT....
So sad.jpg
SORRY, NOT SO
sorry not sorr...
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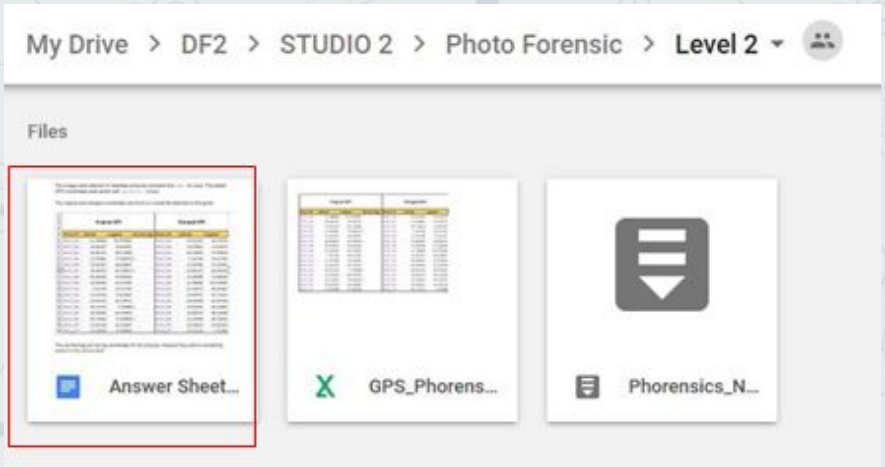
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Files
Answer Sheet...
GPS_Phorens...
Phorensics_N...

Challenges

- Testing revealed issues that were fixed
- Too much work initially. Feedback from course leader led to changes in the project
- The difficulty levels were hard to estimate

Main Lessons Learned

- We developed an understanding of project planning and how to work together in a group as well as progressing in our field.
- We learned how to reflect on our work and give each other constructive feedback.
- We learned about the professional issues in a project like ours.
- Learned more about Linux and associated tools.

Thanks!

Any questions?

Our project on Github:
https://github.com/thisislola/**DISCLOSE**