**CYB101 Project 1 (🔗** [**Instructions Page**](https://courses.codepath.org/courses/cyb101/unit/1#!projects)**)**

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**Reflection (Required)**

| **🤔Reflection Question #1:** If I had to **describe this CTF experience in 3 emojis,** they would be…  (Feel free to put other comments about your experience this unit here, too!) |
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| **🤔🧐🤩** |

| **🧠Reflection Question #2:** How do CTFs and other practice exercises help build **a** **cybersecurity mindset**? |
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| By exposing participants to real-world situations, strengthening critical thinking abilities, encouraging teamwork, supporting continual learning, and highlighting ethical considerations, CTFs and other cybersecurity practice exercises aid in the development of a cybersecurity mentality. These enable learners to obtain practical experience in a secure setting while also learning how to recognize and defend against cyberattacks. They also place a high emphasis on moral behavior and responsible behavior, contributing to the development of a strong ethical framework. |

| **📣 Shoutouts:** Share appreciation for anyone who helped you out with this project or made your day a little better! |
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| The CodePath team |

**CTF Challenges (Required)**

Use the answer boxes below to document any CTF challenges you completed. Be sure to include information about **how** you solved the problem – Imagine you’re writing a how-to guide for future cybersecurity students!

#### **Trivia Challenges**

| **👥 Challenge 1:** Honesty is Best Policy | **Solution: Integrity** |
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| **How to Solve: The adage "honesty is the best policy" does not specifically refer to any of the three CIA Triad components. The three fundamental characteristics of confidentiality, integrity, and availability are described by the CIA Triad, a paradigm used in information security.**  **A moral precept that emphasizes the importance of honesty and integrity in interpersonal relationships is "honesty is the best policy." Even while it is a vital personal and professional virtue, honesty has nothing to do with the CIA Triad specifically. But honesty and integrity are crucial elements of a security culture that can support the concepts of integrity and confidentiality in information security.** | |

| **👥 Challenge 2:** Lots of Jobs! | **Solution: California** |
| --- | --- |
| **How to Solve: I went to the website and checked the heatmap of job openings and compared the job openings. It showed California with the most job openings of 81,584.** | |

| **👥 Challenge 3:** Hostage | **Solution: Ransomware** |
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| **How to Solve: I googled the characteristics of the software. It described Ransomware as a type of malware that encrypts the file on a victim’s computer and then demands payment.** | |

#### **Reconnaissance Challenges**

| **👥 Challenge 4:** 11,185,272 | **Solution: 12,837,064** |
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| **How to Solve:I googled the number and got the 46th mersenne number and googled again for the 47th mersenne number and got the answer.** | |

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| **👥 Challenge 5:** Read Me | **Solution: flag{h3r3syerfl@g}** |
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| **How to Solve: I got the hex value from the file since it was a pdf file, I saved the file in the .pdf filetype which displayed the flag.** | |

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| **👥 Challenge 6:** Three Even, Two Odd | **Solution: 24835** |
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| **How to Solve: Compared the number of correct digits to the digits that are correctly placed. Compared each rows values to another rows to take out the numbers. And based on the depending numbers, took the hint from 3 even and two odd.** | |

#### **Cryptography Challenges**

| **👥 Challenge 7:** Shifty | **Solution: The password is PleaseChangeMe** |
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| **How to Solve: I used the ROT13 decrypt and played with the amount till it was encrypted. In the end, the amount 29 worked.** | |

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| **👥 Challenge 8:** Encoded Message | **Solution: itgetsharderfromhere** |
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| **How to Solve: I googled what “=” at the end mean and it showed it is base64 encrypted. Then I decrypted using From Base64.** | |

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| **👥 Challenge 9:** Kasiski Who? | **Solution: HAVINGFUNCRACKINGCODES** |
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| **How to Solve: For the Key, I used the two decrypt from the labs i.e Rail Fence Cipher Decode and then ROT13. After that I used the key with Vignere Decode and decoded the code.** | |

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| **👥 Challenge 10:** But are there eggs? | **Solution: ABRACADABRA** |
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| **How to Solve: I used the Bacon Cipher Decode and played around with the Alphabet and Translation until got the answer. The alphabet used is Standard(I=J and U=V) and Translation is A/B** | |

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| **👥 EXTRA Challenge 11:** Arch EXIF! | **Solution: flag{h1ding\_in\_plane\_s1ght}** |
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| **How to Solve: First I used the Extract EXIF to decode the image which displayed the Make of the image and I copied the code. Since the make had the ending with “==”, I knew it was base64 decoded so I used From Base64 to decode the message and got the hidden flag.** | |

**Submission Checklist**

**👉***Check off each of the features you have completed.* ***You will only be graded on the features you check off.***

**Reflection**

* ~~Reflection Question #1 answered above~~
* ~~Reflection Question #2 answered above~~

**CTF Challenges (6+ needed for full credit, 9+ needed for extra credit)**

* ~~Challenge #1: Honesty is Best Policy~~
* ~~Challenge #2: Lots of Jobs!~~
* ~~Challenge #3: Hostage~~
* ~~Challenge #4: 11,185,272~~
* ~~Challenge #5: Read Me~~
* ~~Challenge #6: Three Even, Two Odd~~
* ~~Challenge #7: Shifty~~
* ~~Challenge #8: Encoded Message~~
* ~~Challenge #9: Kasiski Who?~~
* ~~Challenge #10: But are there eggs?~~
* ~~EXTRA Challenge #11: Arch EXIF!~~

**Submit your work!**

| Step 1: **Click** the Share button at the top of your screen double check that anyone with the link can edit. (This allows our grading team to input your grade below!)      Step 2: **Copy** the link to this document.    Step 3: **Submit** the link on the portal. |
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**Grader Comments**

| *Once your project has been assessed, our graders will leave feedback for you in this space. Please do not delete.* **Grading Rubric**  | Reflection Questions | Total Received | Total Possible | | --- | --- | --- | | Reflection Question #1 answered above | 2 | 2 | | Reflection Question #2 answered above | 2 | 2 | | **PART A TOTAL** | **4** | **4** | | CTF Challenges | Total Possible | Total Possible | | Complete 3+ CTF challenges and document your process | 6 | 6 | | Complete 6+ CTF challenges and document your process | 6 | 6 | | Complete 9+ CTF challenges and document your process | 2 | (+2 bonus) | | Complete all 11 CTF challenges and document your process | 2 | (+2 bonus) | | **PART B TOTAL** | **16** | **12** (+4) | | **Total Possible Points (Part A + Part B)** | **20** | **16** (+4) |   **Grader Feedback** 👍 Nice work! You've successfully completed the first assignment and taken your first step towards building a Cybersecurity mindset! |
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