

AP Cybersecurity 2026 Summer Assignment: The State of the Digital Frontier

Course: Information Technology / Computer Science

Source Material: [2025 Cybersecurity Almanac](#)

Objective: To understand the economic, social, and technical impact of cybercrime and explore the future of the cybersecurity workforce.

Directions: When answering the questions, be as specific as you can. Use complete sentences. The link provides links within it and you should click those links to get a better understanding of cybersecurity and what we will be learning this year.

Print out and turn in all work on the first day of class.

Part 1: The "Global Economy" of Crime (Data Analysis) (20 pts)

According to the Almanac, if cybercrime were a country, it would be the **third-largest economy in the world** after the U.S. and China.

1. **The \$10.5 Trillion Impact:** In your own words, explain why cybercrime is growing so rapidly. Identify three specific factors mentioned in the Almanac that contribute to this "economic" growth (e.g., the expansion of the attack surface, the rise of AI, or the dark web).
 2. **Ransomware Math:** The Almanac provides statistics on how often a business falls victim to a ransomware attack. Find the most recent "seconds/minutes" statistic. **Show your work.**
 - *Calculation:* Based on that frequency, how many businesses are estimated to be attacked during your 20-minute lunch break?
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Part 2: The Evolving Threat Landscape (Research & Definitions) (30 pts)

The 2025 Almanac highlights new and emerging threats. Use the link to define and explain, in detail, the significance of the following three concepts:

1. **AI-Driven Attacks:** How are hackers using Artificial Intelligence (AI) and Machine Learning to make their attacks more effective?

2. **Cryptocrime:** The Almanac predicts cryptocrime costs will reach \$30 billion in 2025. What are "exit scams" or "rug pulls" in the context of digital currency?
 3. **The "Human Element":** Find the statistics regarding what percentage of cyberattacks strike small businesses. Why do you think small businesses are often targeted more than large corporations?
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Part 3: Career Exploration (The Talent Gap) (30 pts)

The cybersecurity industry is facing a massive "talent gap" with millions of unfilled positions.

1. **The Job Shortage:** According to the Almanac, how many cybersecurity jobs are currently unfilled globally?
2. **Diversity in Cyber:** Look for the section on **Women in Cybersecurity**.
 - What is the projected percentage of women in the cybersecurity workforce for 2025?
 - Why is diversity (gender, race, and background) considered a "strategic advantage" when fighting hackers?
3. **Future-Proofing:** If you were to pursue a career in this field, which specialized area mentioned in the Almanac (e.g., Cloud Security, IoT Security, Ethical Hacking, or AI Defense) sounds most interesting to you and why?

Part 4: Creative Mini-Project (Choose ONE) (20 pts)

- **Option A: The Infographic.** Create a **one-page** visual "Fact Sheet" using Canva or hand-drawing. It must highlight 5 of the most "shocking" statistics you found in the 2025 Almanac.
- **Option B: The CISO Memo.** Imagine you are the **Chief Information Security Officer (CISO)** of a major company. Write a **300-word** memo to your employees explaining the top two threats they should watch out for this year based on the Almanac's predictions. Use complete sentences.
- **Option C: The History Hunt.** The Almanac mentions "Some History" (e.g., the first national data network in France in the 1790s or the origin of the word "hack"). Write a short paragraph on one historical event mentioned and explain how it connects to the technology we use today. Be specific and use complete sentences.