Software-Related Task - Individual Presentation

Overview

This assignment requires each student to select and research a software-related topic from the provided list or propose a topic (with instructor approval). Students will create a **4-11 minute presentation** with **4-10 slides**, structured to provide an engaging and well-organized overview of the topic.

Objective

The goal is to:

1. Demonstrate understanding of the chosen topic.
2. Relate the topic to a **military or national defense application**.
3. Develop professional presentation skills.

Presentation Requirements

- **Duration:** 4-11 minutes (ideally 5-10 minutes).
- **Slides:** 4-10 slides (ideally 5-9 slides).
    - **Title Slide:** Include your name and topic.
    - **Background and Motivation:** What problem does the software or topic address?
    - **Overview:** Explain the topic in simple terms.
    - **Military or Defense Application:** How is this relevant to national defense or military use?
    - **References/Attributions:** Cite sources used.

Grading Rubric (5 Points Total)

Criteria	Points	Details
Visual Layout	1	Is the presentation visually appealing and easy to read?
Slide Organization	1	Do the slides stay within the limit and follow a logical order?
Military Application	1	Does the presentation effectively highlight a military or national defense connection?
Timeliness	1	Does the presentation stay within the allotted time?
Speaker's Presence	1	Was the presentation delivered confidently and professionally?

Submission

- Location and format: Submit your presentation slides in .pptx **and** .pdf format to the class repository's *main* branch under the *presentations* folder.
- Naming convention: Prefix your submissions with your name and then a short title for your topic. For example, my presentation is labeled moore_git_and_github.pptx and moore_git_and_github.pdf.
- Due date: Presentations may be given during any scheduled class period, between December 2-11, 2024.

Topics

Choose from the following or propose your own (subject to instructor approval):

- **Chapters from the book**
- **Emerging Software Technologies**:
  - Quantum computing software
  - Night vision goggle software
  - Gunship target tracking
- **Security and Licensing**:
  - AntiVirus software
  - Software licensing models (e.g., open source, IP laws)
- **Development Tools**:
  - git, GitHub, MATLAB, compilers, IDEs, virtual machines
- **Software Architectures**
- **Programming Languages**
- **Case Studies**
  - Software crisis
- **Security Concerns**:
  - Ransomware, DevOps
- **Project Management**:
  - Agile, Scrum, Kanban
- **Data Topics**:
  - Fonts, digital images, character encoding
- **Specialized Software**:
  - Embedded software, software for mobile devices
- **Cloud Computing and Storage**
- **Novel Technologies**:
  - CUDA, AI-driven development tools