

**Project1**  
**You should be submitted in Backboard CTEC402\ Project1:**  
**Due Date: 9/28/24 (1:00 pm)**

**Description:** You are required to work in a group of two. Teams will be formed when a project is given, and if it doesn't work out with your team members you are responsible for working on the project individually. You should work on this project outside of class time.

This is Project it has a maximum of 20 points. **The maximum plagiarism allowed is 10%.** Anything more than that I will deduct points for each additional percent of plagiarism.

**You must utilize this format for the Project:**

**Topic: Protection of Sensitive Data with Zero Trust Model and machine learning**

Project2 Submitted

By: **Your Name**

**BOWIE STATE UNIVERSITY**

CTEC402.001

Fall 2024

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## The Research Project format definition

**ChatGPT** - is a prototype dialogue-based AI chatbot capable of understanding natural human language and generating impressively detailed human-like written text.

**Broader Impacts:** The Broader Impacts criterion encompasses the **potential to benefit society** and contribute to the achievement of specific, desired societal outcomes.

**Introduction** — Define the issue and provide background discussion while **building credibility**. Find common ground with your audience and hook them in.

**Problem Definition** — Don't start selling yet. Thoroughly and completely **identify the business problem** your technology solves. This section should be entirely from the perspective of the target audience.

**Definition of Research Purpose** --The research purpose is a statement of "why" the study is being conducted, or the goal of the study. The goal of a study might be to identify or describe a concept or to explain or predict a situation or solution to a situation that indicates the type of study to be conducted.

**Methods Solution** — Describe **relevant technologies** at a high level, including any competing technologies (which you will rebut later). Support your arguments with tables, charts, and graphics. Quote industry experts as needed to bolster your positions. You are educating your target audience on the current state of the art, as well as where your solution fits.

1. **Method one:** Download different tools and run tests on the virtual network and include the results in your report. Make sure to compare the results with the second method and make a recommendation on which is better.
2. **Method two:** You need to write either write a program or script and run tests on the virtual network and include the results in your report. Make sure to compare the results from the first method in your report.
3. **Method three from articles:** The methods section of a research paper is the most important because it provides both methods and material used in the procedures of the study.

**Research methodology** -- is the specific procedures or techniques used to identify, select, process, and analyze information about a topic. In a research paper, the methodology section allows the reader to critically evaluate a study's overall validity and reliability. The methodology section answers two main questions: How was the data collected or generated? How was it analyzed?

### **Research questions**

The process of developing your research question follows several steps:

- Choose a broad topic
- Do some preliminary reading to find out about topical debates and issues
- Narrow down a specific niche that you want to focus on
- Identify a practical or theoretical research problem that you will address

When you have a clearly-defined problem, you need to formulate more questions. Think about exactly what you want to know and how it will contribute to resolving the problem

**Case studies** usually follow a typical story structure, which means they have a beginning, middle, and end. Think of them as a “before and after” snapshot of a customer's business – complete with quotes, statistics, and

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images. Example: Baltimore transfers \$6 million to pay for ransomware attack; city considers insurance against hacks: <https://www.baltimoresun.com/politics/bs-md-ci-ransomware-expenses-20190828-njgznd7dsfaxbbaglnvnbkgjhe-story.html>

**Summary** — A research summary is a type of paper designed to provide a brief overview of a given study - typically, an article from a peer-reviewed academic journal.

#### **Your Project MUST contain following format:**

First write your OWN words. Next, using the new AI ChatGPT, ask it the same question(s) and edit the responses down to 255 characters. You can create a chart to show your work and ChatGPT side-by-side. Make sure in your answers you reference the readings.

1. Introduction (**2 points**) (minimum two paragraph with 255 characters and with single space) first write your OWN and use ChatGPT
2. Problem Statement (**2 points**) (minimum one paragraph with 255 characters and with single space) first write your OWN and use ChatGPT
3. The Broader Impacts (**2 points**) ((minimum one paragraph with 255 characters and with single space)) first write your OWN and use ChatGPT
4. Purpose of the Research (**1 points**) (minimum one paragraph with 255 characters and with single space) first write your OWN and use ChatGPT
5. Case Study (**2 points**) (minimum two paragraph with 255 characters and with single space) first write your OWN and use ChatGPT
6. Methodologies (**8 points**) (**1 pt. each**) ( each method minimum one paragraph with 255 characters and with single space) first write your OWN and use ChatGPT

#### **Method three from articles : first write your OWN and use ChatGPT :**

1. Method – From the article 1: You need write your own first and result from ChatGPT
2. Method - From the article 2 : You need write your own first and result from ChatGPT
3. Method - From the article 3: You need write your own first and result from ChatGPT
4. Method - From the article 4 : You need write your own first and result from ChatGPT

#### **Method one and two: first write your OWN and use ChatGPT to explain the results:**

5. Method – On your own, test the method using software/tools, and explain the results.
6. Method - On your own, test the method using software/tools, and explain the results.
7. Method - On your own, test the method using software/tools, and explain the results.

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8. Method - On your own, test the method using software/tools, and explain the results.
7. Summary (2 points) (minimum one paragraph with 255 characters and with single space)
8. References (1 points) (minimum 10 different with references APA style format)  
<https://www.mendeley.com/guides/apa-citation-guide>

### Project Requirement

You must complete all 8 sections of this Project, in an organized, well-written report.

**NOTE:** You need to have 8 methodologies, each one coming from one of the ten articles that you read. You must explain each article in the literature review section and then explain the methodology itself in the methodologies section. Include the description of the methodology and any experiments, results, etc. Example article

[https://upcommons.upc.edu/bitstream/handle/2117/99318/FCTRU\\_2016\\_paper\\_29.pdf](https://upcommons.upc.edu/bitstream/handle/2117/99318/FCTRU_2016_paper_29.pdf)  
[https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=8514421&casa\\_token=gYvXf1ueArMAAAAA:5fUZodcUnBa4CMEUS3awKwhs8jb6xtVfS4CrSBCrJ\\_0oru9uyqaBd9lGgzP7wXw\\_bgsFD4QFcZ4p](https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=8514421&casa_token=gYvXf1ueArMAAAAA:5fUZodcUnBa4CMEUS3awKwhs8jb6xtVfS4CrSBCrJ_0oru9uyqaBd9lGgzP7wXw_bgsFD4QFcZ4p)

**You need use the scholar Google to find correct articles:**

<https://scholar.google.com/>

### Project Deliverables

- **Report needs to be submitted into Blackboard by the due date**
- **Prepare a class PowerPoint Presentation and DEMO. (50% of your grade is based on successful DEMO with documentation)**
- **Prepare a 15-20 Slides PowerPoint in class to DEMO your results**
- **Record a Slideshow with Narration as a Video in PowerPoint**  
**It needs to be submitted in Blackboard by 2:00 PM on due date before the class otherwise it will not be graded. NO LATE WORK ACCEPTED. Be prepared to present it during the class.**

### REQUIREMENTS

- Any project received after the time of the class is considered late (**NO EXCUSES**) and is graded Zero.