AI STUDY BUDDY N8N WORKFLOW

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PROBLEM DEFİNİTİON + MOTİVATİON

- STUDENTS STRUGGLE TO UNDERSTAND **LARGE AMOUNTS** OF COURSE MATERİAL AND OFTEN FEEL **OVERWHELMED**
- MANUAL REVİSİON TAKES TOO MUCH **TİME**
- NOT ALL STUDENTS KNOW HOW TO CREATE **EFFECTİVE QUİZZES** FOR THEMSELVES
- LEARNİNG İS **İNCONSİSTENT** BECAUSE STUDENTS DON'T GET **İMMEDİATE FEEDBACK**

IDEA: QUİZ CREATOR

- **CREATE QUİZ** USİNG YOUR OWN NOTES
- **SET DİFFİCULTY** TO YOUR LİKİNG AND EXPERİENCE
- GET **İNSTANT** QUİZ **RESULTS** AND **FEEDBACK**

USE CASE & VALUE PROPOSİTİON

- HELPS STUDENTS QUİCKLY **GENERATE PERSONALİSED QUİZZES** FROM THEİR COURSE PDFS.
- SUPPORTS **EXAM PREPARATİON** BY İDENTİFYİNG **STRONG** AND **WEAK** TOPİCS AUTOMATİCALLY.
- PROVİDES **İNSTANT FEEDBACK** AND **TAİLORED STUDY NOTES** AFTER EACH QUİZ ATTEMPT.
- ENABLES **CONTİNUOUS SELF-ASSESSMENT** WİTHOUT RELYİNG ON TEACHERS OR MANUAL QUESTİON CREATİON.

PROCESSES AND INTERFACES

- **PLATFORM**:
  - CURRENT: RUNS İNSİDE N8N USİNG BUİLT-İN NODES
  - LONG TERM: DEDİCATED **WEB APP** OR **LEARNİNG PORTA**L WİTH ADVANCED FEATURES

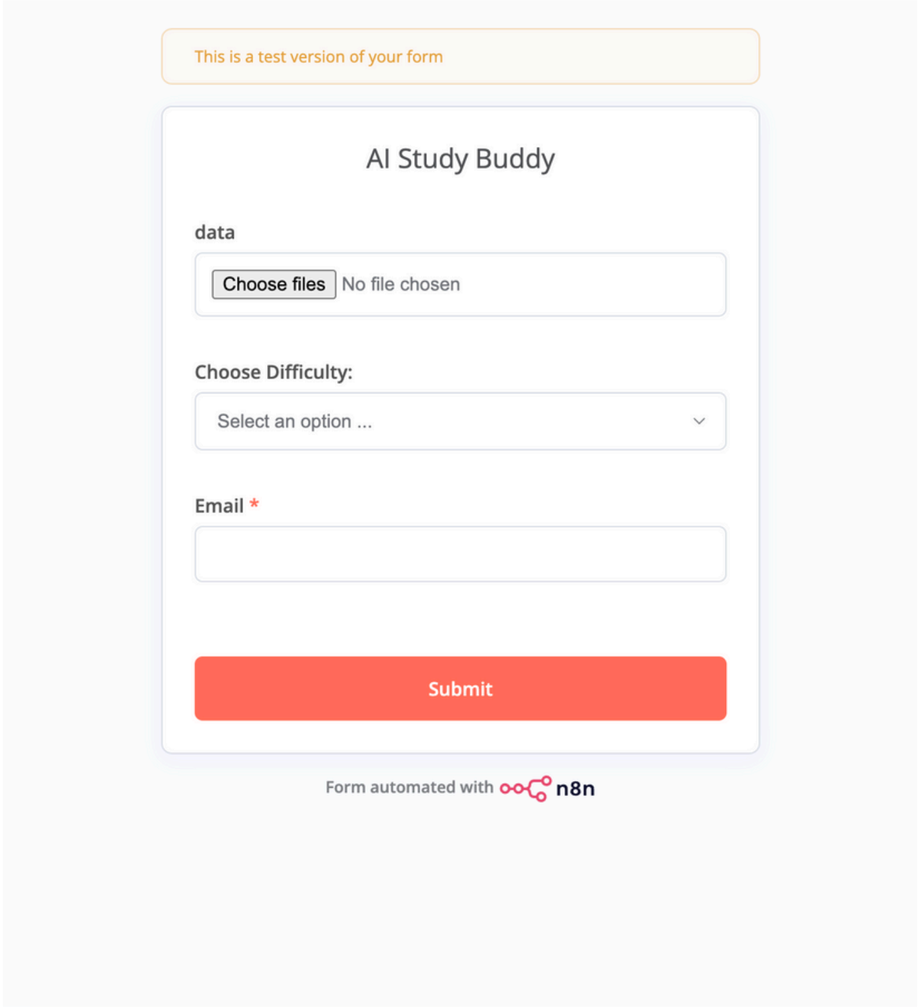
- **DATA SOURCES**:
  - CURRENT: PDF COURSE MATERİALS UPLOADED MANUALLY BY THE USER
  - LONG TERM: PULL DATA **AUTOMATİCALLY** FROM LMS PLATFORMS, API'S, CONTENT REPO'S

- **DATA BASES**:
  - CURRENT: DATA İS STORED İNSİDE İN-BUİLT DATA STORAGE
  - LONG TERM: A **SCALABLE EXTERNAL DATABASE** (EG. MONGODB) CAN SUPPORT **USER PROFİLES**, **QUİZ HİSTORY**, ETC.

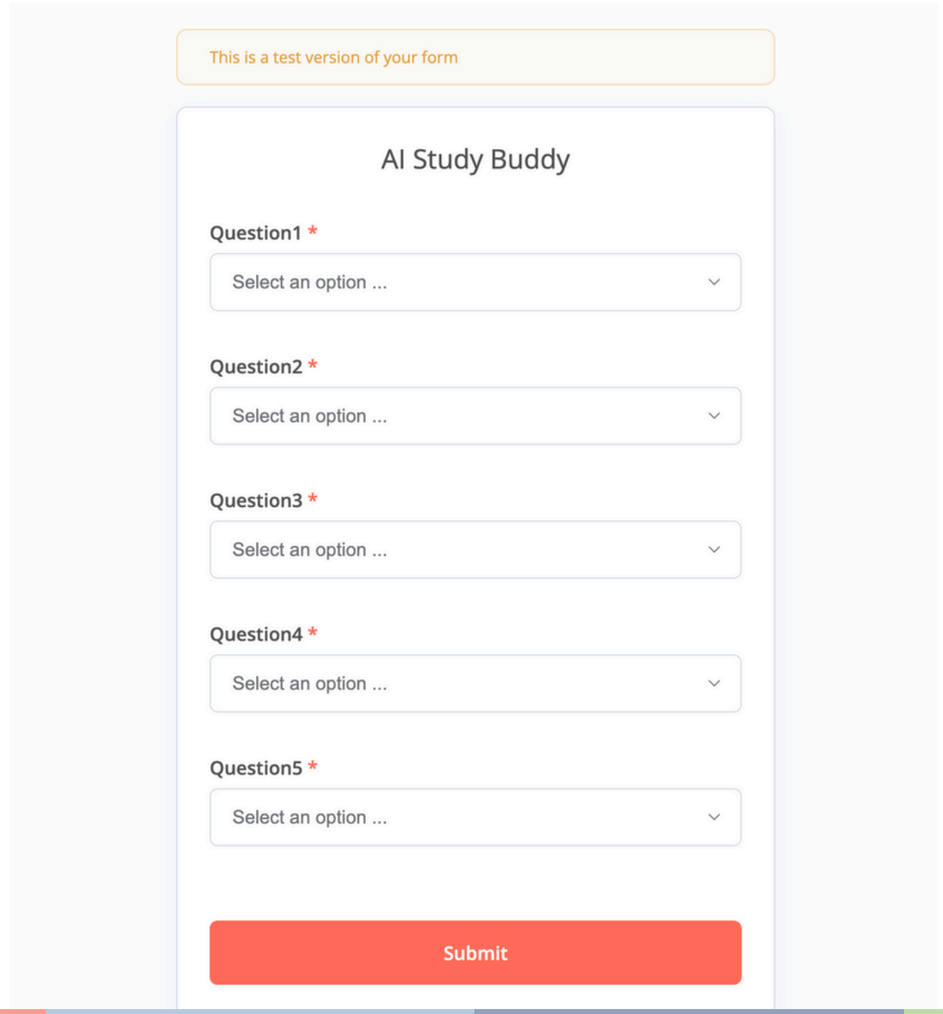
- **DATA COLLECTİON**:
  - CURRENT: MANUALLY UPLOAD PDFS AND TRİGGER THE WORKFLOW
  - LONG TERM: **AUTOMATED SCHEDULED İNGESTİON** CAN CONTİNUOUSLY COLLECT NEW COURSE MATERİALS

USER FLOW

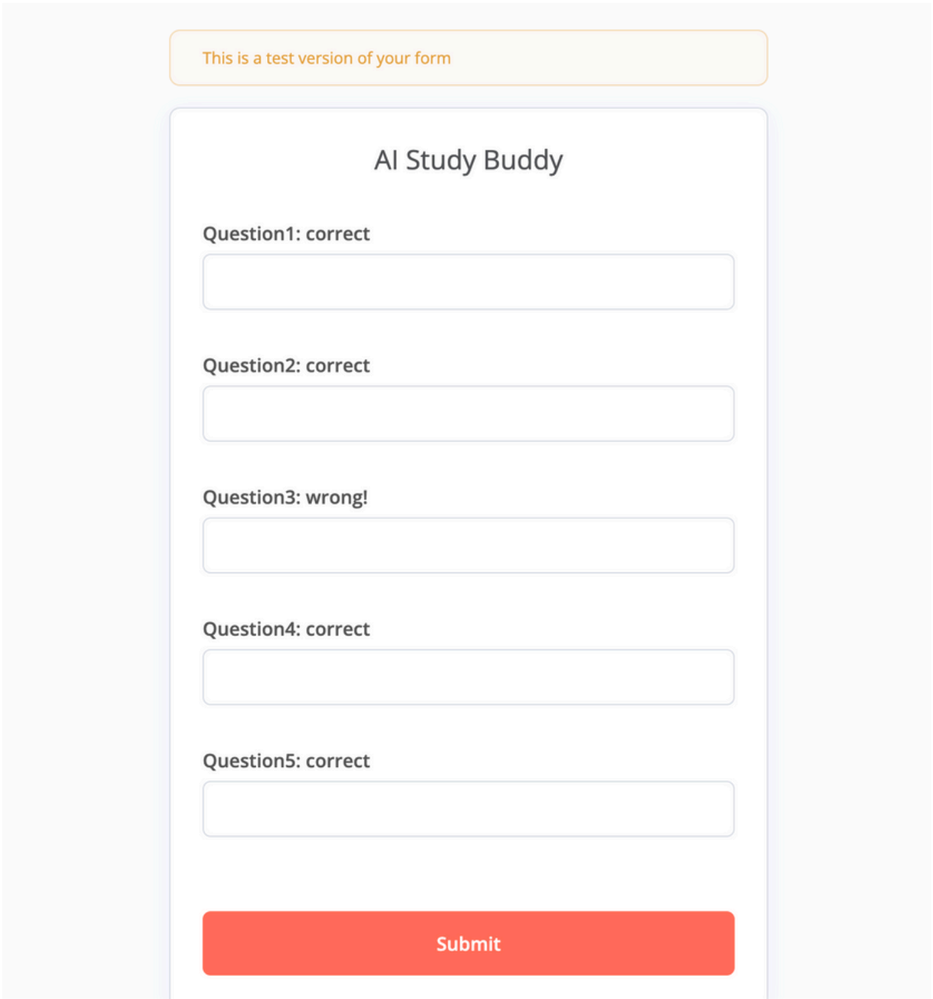
STEP 1: UPLOAD CONTENT



STEP 2: COMPLETE QUİZ



STEP 3: GET QUİZ RESULTS



STEP 4: GET Aİ FEEDBACK

Feedback for your Quiz Performance

Feedback on Areas to Focus On and Why Based on the questions you got wrong, several key areas in OSI Security Architecture and fundamental security concepts appear to be challenging for you. Here's a breakdown of the topics needing deeper focus and the reasoning behind their importance: --- #### **1. Security Objectives (Non-Repudiation, Privacy, and Authentication)** You struggled with questions about security objectives like uniquely linking actions to entities and controlling personal information access. These questions relate to **core security goals** (non-repudiation, confidentiality, integrity, availability, and access control). - **Why it matters**: Security objectives are foundational. Mixing up terms like *non-repudiation* (ensuring actions cannot be denied) versus *authentication* (verifying identity) or *privacy* (controlling data collection) can lead to confusion. Mastery here requires memorizing definitions and understanding real-world applications. - **Common pitfall**: Assuming all objectives are interchangeable. For example, "linking actions to entities" is specific to *non-repudiation*, not authentication. --- #### **2. OSI Security Architecture Terminology (Attacks, Threats, Mechanisms, and Services)** Questions on distinguishing threats from attacks, defining passive/active attacks, and explaining security mechanisms/services in OSI were problematic. This indicates gaps in recalling OSI-specific definitions and their distinctions. - **Why it matters**: OSI Security Architecture uses precise terminology. A *threat* is a potential harm (e.g., a hacker), while an *attack* is the execution of that threat (e.g., launching a DDoS). Misidentifying these can invalidate answers. - **Active vs. Passive Attacks**: Confusing these is common. Passive attacks (e.g., eavesdropping) involve stealthy data interception, while active attacks (e.g., data alteration) require direct action. --- #### **3. Security Services in OSI** The question about security services in OSI suggests you need to solidify your understanding of services like

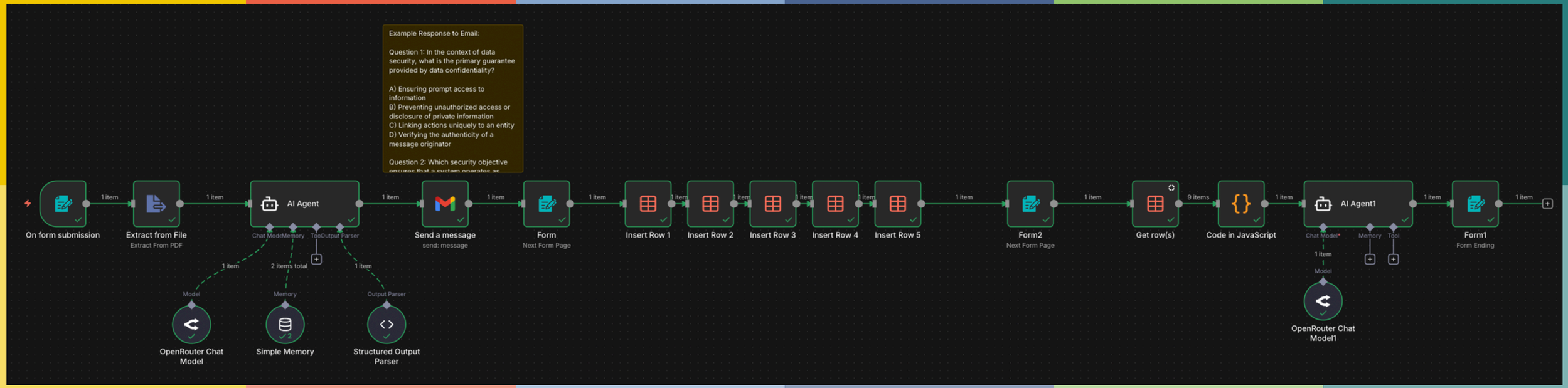
STEP 4: GET Aİ FEEDBACK

Mechanism vs. Service: A mechanism (e.g., VPN) implements a service (e.g., confidentiality). **Action Steps**: - Diagram the relationship between mechanisms and services. - Practice identifying which service a mechanism provides (e.g., a firewall provides access control). --- ### **Daily Study Schedule (4 Weeks)** **Week 1: Core Concepts** - **Day 1-2**: Focus on security objectives (non-repudiation, privacy). Study flashcards and examples. - **Day 3-4**: Learn OSI terminology (threats, attacks, mechanisms). Use comparison tables. - **Day 5-7**: Master active/passive attacks and OSI services. Quiz yourself with example scenarios. **Week 2: Application Practice** - **Day 8-10**: Solve practice questions mimicking the ones you got wrong. Focus on distinguishing objectives and attacks. - **Day 11-12**: Review mistakes and revisit weak areas (e.g., mechanism vs. service confusion). - **Day 13-14**: Group study or teach concepts to someone else to reinforce memory. **Week 3: Deep Dives** - **Day 15-17**: Revisit OSI Security Architecture diagrams. Study how services/mechanisms interact. - **Day 18-20**: Practice crafting answers for essay-style questions (e.g., "Explain how non-repudiation ensures accountability"). - **Day 21-23**: Full-length mock exam focusing on the problematic question types. **Week 4: Review and Final Prep** - **Day 24-26**: Revise all notes. Focus on difficult topics (e.g., active attacks). - **Day 27-28**: Take another mock exam. Track time and accuracy. - **Day 29-30**: Light revision. Prioritize high-yield areas. --- ### **Final Tips** 1. **Spaced Repetition**: Review notes every 24-48 hours to retain definitions. 2. **Active Recall**: Test yourself without notes before reviewing answers. 3. **Stay Organized**: Use color-coded notes for different topics (e.g., red for attacks, blue for objectives). 4. **Ask for Clarity**: If unsure about a term, rephrase it in simple language (e.g., "What does passive attack mean in everyday terms?"). By targeting these areas with structured notes and a disciplined study plan, you'll build confidence in OSI Security Architecture fundamentals. Good luck!

DATABASE: “QUİZZES”

Personal / Data tables / Quizzes

id	Question	Topic	correct	createdAt	updatedAt
1	*Null*	*Null*	☐	2025-11-27T16:44:28.095+01:00	2025-11-27T16:44:28.095+01:00
2	What is the primary goal of data confid	Security Objectives	☑	2025-11-27T19:39:02.417+01:00	2025-11-27T19:39:02.417+01:00
3	Which security objective ensures that a	Security Objectives	☐	2025-11-27T19:39:02.452+01:00	2025-11-27T19:39:02.452+01:00
4	In OSI Security Architecture, what is a s	OSI Security Architecture	☐	2025-11-27T19:39:02.538+01:00	2025-11-27T19:39:02.538+01:00
5	What distinguishes a threat from an atta	Threats and Attacks	☐	2025-11-27T19:39:02.655+01:00	2025-11-27T19:39:02.655+01:00
6	Which of the following is an example of	Security Attacks	☐	2025-11-27T19:39:02.749+01:00	2025-11-27T19:39:02.749+01:00
7	Which security objective ensures that p	Security Objectives	☐	2025-11-27T19:41:10.748+01:00	2025-11-27T19:41:10.748+01:00
8	Cybersecurity encompasses protection	Cybersecurity Fundamentals	☑	2025-11-27T19:41:10.775+01:00	2025-11-27T19:41:10.775+01:00
9	According to OSI Security Architecture,	OSI Security Architecture	☐	2025-11-27T19:41:10.806+01:00	2025-11-27T19:41:10.806+01:00
10	What is the key difference between a th	Threats and Attacks	☑	2025-11-27T19:41:10.835+01:00	2025-11-27T19:41:10.835+01:00
11	Which of the following is an example of	Security Attacks	☐	2025-11-27T19:41:10.866+01:00	2025-11-27T19:41:10.866+01:00
12	Which of the following best describes c	Security Objectives	☑	2025-11-30T12:40:41.455+01:00	2025-11-30T12:40:41.455+01:00
13	System integrity ensures that:	Security Objectives	☑	2025-11-30T12:40:41.484+01:00	2025-11-30T12:40:41.484+01:00
14	According to OSI Security Architecture,	OSI Security Architecture	☐	2025-11-30T12:40:41.520+01:00	2025-11-30T12:40:41.520+01:00
15	What is the key difference between a th	Threats and Attacks	☑	2025-11-30T12:40:41.560+01:00	2025-11-30T12:40:41.560+01:00
16	Which of the following is an example of	Security Attacks	☑	2025-11-30T12:40:41.600+01:00	2025-11-30T12:40:41.600+01:00


Example Response to Email:
Question 1: In the context of data security, what is the primary guarantee provided by data confidentiality?
A) Ensuring prompt access to information
B) Preventing unauthorized access or disclosure of private information
C) Linking actions uniquely to an entity
D) Verifying the authenticity of a message originator
Question 2: Which security objective
On form submission
Extract from File
Extract From PDF
AI Agent
Chat Model
Memory
Tool
Output Parser
Send a message
send: message
Form
Next Form Page
Insert Row 1
Insert Row 2
Insert Row 3
Insert Row 4
Insert Row 5
Form2
Next Form Page
Get row(s)
Code in JavaScript
AI Agent1
Chat Model*
Memory
Tool
Form1
Form Ending
1 item
2 items total
9 items
Model
Memory
Output Parser
OpenRouter Chat Model
Simple Memory
Structured Output Parser
OpenRouter Chat Model1

END USERS & STAKEHOLDERS

- TEACHERS AND PROFESSORS AND COURSE DESIGNERS
- INDEPENDANT TUTORS AND COACHING CENTERS
- EDTECH COMPANIES
- STUDENTS

RISKS, COSTS & RESOURCE NEEDS

- RISKS
  - API DEPENDENCY
  - LLM HALLUCINATIONS
- COSTS
  - API TOKEN USAGE
  - HOSTING + STORAGE FEES
- RESOURCE
  - DEVELOPER/ENGINEER FOR WORKFLOW MAİNTENANCE
  - INSTRUCTOR REVIEWERS

ETHICS & LEGAL CONSIDERATIONS

- DATA PRIVACY & GDPR
  - PERSONAL DATA HANDLING
  - COMPLIANCE WITH EU REGULATIONS
- BIAS & FAIRNESS
  - RISK OF BIASED QUESTIONS
  - UNEQUAL IMPACT ON NON-NATIVE SPEAKERS
- TRANSPARENCY
  - EXPLAINABLE OUTPUTS
  - CLEAR LIMITATIONS & DISCLAIMERS
- SECURITY
  - ENCRYPTION & ACCESS CONTROL
  - SECURE DOCUMENT HANDLING
- ETHICAL USE
  - AVOIDING MISUSE FOR CHEATING
  - HUMAN OVERSIGHT REQUIRED
- ACCOUNTABILITY
  - CLEAR OWNERSHIP & MAINTENANCE ROLES
  - RESPONSIBILITY FOR ERRORS OR MISUSE

THANK YOU!
QUESTIONS?