Research Methods and Professional Practice

DESIGN & IMPLEMENT CLOUD SECURITY (IAM/DATA SECURITY) FRAMEWORK AND DEVELOP AND CLOUD INCIDENT RESPONSE-RESEARCH PROPOSAL (UNIT-10)

AGENDA

- Project Requirements
- Significance/Contribution to the discipline/Research Problem
- Research Questions
- Aims and Objectives
- Key literature related to the project
- Methodology/Development strategy/Research Design
- Ethical considerations and risk assessment (as part of your ethical approval application)
- Description of artefact(s) that will be created (if applicable)
- Timeline of proposed activities

PROJECT REQUIREMENTS

- British Computer Society (BCS) criteria
  - Establish practical work using computing/IT technology
  - Define the research problem and establish its objectives
  - Final Report covering results, lessons learned etc.

- CyBOK Knowledge Area

- Required for MS-Cybersecurity

DELIVERABLES MAPPING

REQUIREMENT	ARTEFACT
Problem understanding & existing research	Literature Review Research Development
Demo in knowledge application	Cloud Security Assessment for the research questions (IAM, Data Security, Incident Response)
Establish a technical skill through demonstration	
CyBok Knowledge Areas	Network Security Access Control Cryptography Security Operations and Incident Response

RESEARCH QUESTIONS

- How can organizations assess & implement identity and access management controls in cloud environments to prevent unauthorized access and privilege escalation?

- What are the best practices for data encryption in various cloud service categories (IaaS, PaaS, SaaS) implementation, and how can the efficacy of encryption measures be evaluated?

- How can the network security of cloud be evaluated, improved and implemented?

- How can organizations ensure a quick and coordinated response to security incidents? What are the key elements of an effective incident response plan tailored to cloud environments?

AIMS & OBJECTIVES

ETHICAL CONSIDERATIONS

RISK MANAGEMENT

Issues

Mitigation

PROJECT TIMELINES

- Timeline of the project <>

References

- << Relevant References >>

THANK YOU