SKILL INTERN

AMAZON WEB SERVICES

Designed for skill proficiency

PROGRAM HIGHLIGHITS

- **Basic-Advanced Level Training**
  By Experienced Mentors

- **Live & Recorded Lectures**
  At Your Flexible Schedule

- **Real Time Projects**
  Minor & Major Projects

- **Accredited certificates**
  Program approved ISO Certificate

- **Internships**
  Opportunities will be provided

- **Placement Guidance**
  Assistance from industrial EXPERTS

OUR MOTIVE

UPSKILL
Empowering Minds For Tomorrow

ENHANCE
Discover Your Next Ambition

MOTIVATE
Empowering Minds, Igniting Futures

ABOUT US

Skill Intern is a leading EdTech company dedicated to empowering engineering students with the skills and knowledge necessary to excel in today's competitive job market. Our mission is to bridge the gap between theoretical learning and practical application, enabling students to develop a strong foundation and enhance their employability.

AWS is a powerful, flexible, and reliable cloud platform that offers a comprehensive range of services, global infrastructure, and robust security features. Its ability to scale, cost-effectiveness, and continuous innovation make it an ideal choice for businesses of all sizes looking to leverage cloud computing for their operations

WHY AWS ?

❖ **Industry Leader in Cloud Computing**

❖ **Extensive Service Offering**

❖ **Global Reach and Availability**

❖ **Cost-Effectiveness**

❖ **Scalability and Elasticity**

❖ **Security and Compliance**

❖ **Ecosystem and Support**

❖ **Learning and Certification**

❖ **Innovation and Future-Proofing**

❖ **Case Studies and Success Stories**

LEARNING PATH

- Introduction to Cloud Computing
- AWS Core Services Overview
- AWS Compute Services
- AWS Storage Services
- AWS Networking and Content Delivery
- Security and Identity in AWS
- AWS Databases
- AWS Monitoring and Management
- AWS Application Integration

- AWS Analytics
- AWS DevOps Tools
- AWS Security Advanced
- Advanced Networking and Architecting on AWS
- Advanced Serverless Architectures
- AWS Machine Learning and AI
- AWS Cost Management
- Advanced Security Practices
- Capstone Project

Module 1: Introduction to Cloud Computing

- Overview of Cloud Computing
- Benefits and Challenges of Cloud Adoption
- Public, Private, and Hybrid Cloud Models
- Introduction to AWS Cloud
- AWS Global Infrastructure

Module 2: AWS Core Services Overview

- Introduction to AWS Management Console
- Identity and Access Management (IAM)
- Amazon Elastic Compute Cloud (EC2)
- Amazon Simple Storage Service (S3)
- Amazon Virtual Private Cloud (VPC)

Module 3: AWS Compute Services

- EC2 Instances: Types, Configuration, and Management
- Elastic Load Balancing (ELB)
- Auto Scaling and Elasticity
- AWS Lambda: Serverless Computing
- AWS Elastic Beanstalk: Deployment and Scaling

Module 4: AWS Storage Services

- S3: Buckets, Objects, and Permissions
- Amazon EBS: Elastic Block Store
- Amazon Glacier: Archival Storage
- AWS Storage Gateway
- Data Lifecycle Management

Module 5: AWS Networking and Content Delivery

- Amazon VPC: Networking Fundamentals
- Security Groups and Network ACLs
- Route 53: DNS Management
- AWS Direct Connect
- Amazon CloudFront: Content Delivery Network (CDN)

Module 6: Security and Identity in AWS

- AWS IAM: Users, Groups, Roles, and Policies
- Multi-Factor Authentication (MFA)
- AWS Key Management Service (KMS)
- AWS CloudTrail: Auditing and Logging
- AWS Security Best Practices

Module 7: Network Security

- Network Security Architecture
- Intrusion Detection Systems (IDS) and Intrusion Prevention Systems (IPS)
- Security Information and Event Management (SIEM)
- Wireless Network Security (WPA, WPA2, WPA3)
- Virtual Private Networks (VPNs) and Remote Access Security

Module 8: Cybersecurity Threats and Defense Mechanisms

- Advanced Malware Analysis
- Incident Response and Handling
- Forensics and Digital Evidence Collection
- Threat Intelligence and Hunting
- Cybersecurity Incident Management

Advanced Level

Module 9: Ethical Hacking and Penetration Testing

- Introduction to Ethical Hacking
- Penetration Testing Methodologies
- Tools for Ethical Hacking (Nmap, Metasploit, Burp Suite)
- Exploiting Vulnerabilities
- Reporting and Documentation

Module 10: Advanced Cryptography

- Advanced Encryption Standards (AES, RSA)
- Cryptographic Protocols (TLS, IPsec)
- Blockchain and Cryptocurrencies
- Quantum Cryptography
- Cryptographic Attacks and Countermeasures

Module 11: Cloud Security

- Introduction to Cloud Computing and Cloud Security
- Cloud Security Threats and Challenges
- Securing Cloud Services (AWS, Azure, Google Cloud)
- Identity and Access Management in the Cloud
- Cloud Security Best Practices

Module 12: Security Governance, Risk Management, and Compliance

- Security Policies, Procedures, and Standards
- Risk Management Frameworks (ISO 27001, NIST, etc.)
- Compliance and Regulatory Requirements (GDPR, HIPAA, etc.)
- Business Continuity and Disaster Recovery
- Security Audits and Assessments

Module 13: Emerging Trends in Cybersecurity

- Artificial Intelligence and Machine Learning in Cybersecurity
- Zero Trust Architecture
- Internet of Things (IoT) Security
- 5G Security
- Future of Cybersecurity

Module 14: Capstone Project

- Real-world Cybersecurity Project
  - Project Planning and Design
  - Risk Assessment and Threat Modeling
  - Implementation of Security Controls
  - Testing and Validation
  - Final Presentation and Feedback

Assignments & Assessments

❖ Weekly assignments based on module topics
❖ **Mid-term project:** Wireframing and prototyping a small application
❖ **Final project:** Comprehensive CYBER SECURITY project
❖ Participation in class discussions and activities

Recommended Reading

❖ **"Cybersecurity Essentials" by Charles J. Brooks, Christopher Grow, Philip Craig, and Donald Short**
❖ **"The Web Application Hacker's Handbook" by Dafydd Stuttard and Marcus Pinto**
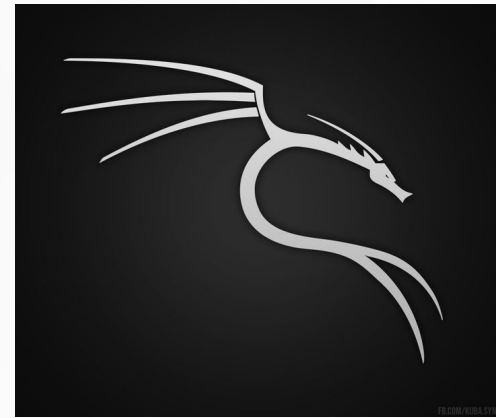❖ **"Network Security Essentials: Applications and Standards" by William Stallings**

FRAME WORKS

CERTIFICATIONS

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THANK YOU

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