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| **ID** | **CLOs** | **Code number** |
| **1** | **“Examine the fundamentals of cloud computing in relation to areas of application, architecture and platform”** | **1** |
| **2** | **“Design a deployment model to be hosted in the cloud for a given scenario”** | **2** |
| **3** | **“Explain different Cloud Service Providers’ (CSP) approaches to providing a cloud architecture framework for business use.”** | **3,4** |
| **4** | **“Assess the technical challenges and risks inherent in moving IT systems to the cloud.”** | **5,6** |
| **5** | **“Define basic algorithms to carry out an operation and outline the process of programming an application”** | **7,8** |
| **6** | **“Explain the characteristics of procedural, object orientated and event-driven programming “** | **9,10,11** |
| **7** | **“Implement basic algorithms in code using an IDE”** | **12,13** |
| **8** | **“Determine the debugging process and explain the importance of a coding standard “** | **14,15** |
| **9** | **“Examine commonplace networking principles used in a cloud infrastructure to support communication.”** | **16,17** |
| **10** | **“Explain the operation of networking technologies within a cloud infrastructure.”** | **18** |
| **11** | **“Enhance network performance for a cloud-based system developed for a given business use case.”** | **19,20** |
| **12** | **“Enhance network performance for a cloud-based system developed for a given business use case”** | **21,22** |
| **13** | **“Design a cloud-based relational database system using appropriate design tools and methods for a substantial problem.”** | **23,24,25** |
| **14** | **“Develop a fully functional relational database system, based on an existing system design and host it in the cloud”** | **26,27,28** |
| **15** | **“Perform system testing against user, technical and hosting requirements”** | **29,30** |
| **16** | **“Produce documentation to support the system and manage the hosting of it in the cloud”** | **31,32** |
| **17** | **“Discuss the cloud architectural principles used for designing a technological solution for an organisational move to the cloud”** | **33,34,35** |
| **18** | **“Develop a cloud-based prototype using an appropriate development methodology for a business case”** | **36,37,38** |
| **19** | **“Test the prototype solution against business case requirements”** | **39,40** |
| **20** | **“Discuss the value gained from developing a cloud-based solution to support sustainable organisational performance.”** | **41,42** |
| **21** | **“Demonstrate a range of interpersonal and transferable communication skills to a target audience.”** | **43,44,45** |
| **22** | **“Apply critical reasoning and thinking to a range of problem-solving scenarios.”** | **46,47** |
| **23** | **“Discuss the importance and dynamics of working within a team and the impact of team working in different environments.”** | **48,49,50** |
| **24** | **“Examine the need for Continuing Professional Development (CPD) and its role within the workplace and for higher level learning”** | **51,52,53** |

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| **ID** | **code** |
|  | **Fundamental understanding of cloud computing** |
|  | **Designing a cloud deployment model** |
|  | **Understanding CSP approaches** |
|  | **Cloud architecture framework for business use** |
|  | **Assessing challenges in cloud migration** |
|  | **Identifying risks in cloud migration** |
|  | **Defining basic algorithms** |
|  | **Outlining the programming process** |
|  | **Characteristics of procedural programming** |
|  | **Characteristics of object-oriented programming** |
|  | **Characteristics of event-driven programming** |
|  | **Implementing basic algorithms** |
|  | **Understanding the debugging process** |
|  | **Importance of coding standards** |
|  | **Networking principles in a cloud infrastructure** |
|  | **communication in the cloud** |
|  | **Operating networking technologies in the cloud** |
|  | **Enhancing network performance** |
|  | **Developing for a specific business use case** |
|  | **Designing a cloud-based relational database system** |
|  | **Use appropriate design tools and methods** |
|  | **Developing a fully functional database in the cloud** |
|  | **Performing system testing** |
|  | **Producing documentation for system support** |
|  | **Managing the hosting of the system in the cloud** |
|  | **Discussing cloud architectural principles** |
|  | **Designing a technological solution** |
|  | **Organizational move to the cloud** |
|  | **Developing a cloud-based prototype** |
|  | **Using an appropriate development methodology** |
|  | **Testing the prototype solution** |
|  | **Discuss the value of cloud-based solutions** |
|  | **Demonstrate interpersonal communication skills** |
|  | **Demonstrating transferable communication skills** |
|  | **Apply critical reasoning to problem-solving** |
|  | **Discussing the importance of teamwork** |
|  | **Examining the need for CPD** |

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| **ID** | **themes** | **Code number** |
| **1** | **Cloud Computing Fundamentals** | **1.2.3.4** |
| **2** | **Cloud Migration and Risk Management** | **5,6** |
| **3** | **Programming Foundations** | **7.8.9.10.11,12,13.14** |
| **4** | **Cloud Networking and Infrastructure** | **15,16,17,18,19** |
| **5** | **Cloud Database Management** | **20,21,22** |
| **6** | **System Testing and Documentation** | **23,24,25** |
| **7** | **Cloud Architecture and Solution Design** | **26.27.28.29.30,31** |
| **8** | **Value of Communication Skills in Cloud Solutions** | **32** |
| **9** | **Critical Thinking and Teamwork in Cloud Development** | **33. 34** |
| **10** | **Continuing Professional Development (CPD) in the Cloud Era** | **35,36** |

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| **ID** | **themes** | **description** |
| **1** | **Cloud Computing Fundamentals** | **This course delves into the intricacies of cloud computing, providing an advanced understanding of its fundamental principles. Covering areas such as application, architecture, and platform, participants gain nuanced insights essential for navigating the complex landscape of modern cloud technologies.** |
| **2** | **Cloud Migration and Risk Management** | **Explore the strategic aspects of cloud migration, emphasizing risk management. Assess the technical challenges and inherent risks involved in migrating IT systems to the cloud. Develop sophisticated strategies to ensure secure and seamless transitions in alignment with organizational objectives.** |
| **3** | **Programming Foundations** | **Master the foundational programming skills crucial for effective cloud solution development. Covering algorithm design, coding in diverse paradigms, and adherence to coding standards, this course provides a comprehensive foundation for proficient cloud-based software development.** |
| **4** | **Cloud Networking and Infrastructure** | **Gain expertise in optimizing networking within cloud infrastructure. This course explores principles supporting cloud communication, operational aspects of networking technologies, and strategies for enhancing network performance. Participants acquire essential knowledge for designing and maintaining efficient cloud networks.** |
| **5** | **Cloud Database Management** | **Delve into advanced strategies for designing and managing cloud-based relational databases. Participants learn to employ sophisticated design tools, develop fully functional systems, and efficiently manage database hosting in the cloud, ensuring optimal performance and reliability.** |
| **6** | **System Testing and Documentation** | **This specialized course focuses on comprehensive system testing and documentation within the realm of cloud solutions. Participants learn industry best practices for rigorous testing, meticulous documentation, and effective system support management, contributing to the reliability and sustainability of cloud-based systems.** |
| **7** | **Cloud Architecture and Solution Design** | **Elevate your expertise in designing strategic cloud-based solutions. Covering architectural principles, organizational cloud transitions, and prototype development, this advanced course equips participants with the skills to architect and implement robust cloud solutions aligned with business imperatives.** |
| **8** | **Value of Communication Skills in Cloud Solutions** | **Enhance communication skills tailored for cloud environments. Participants gain insights into the strategic importance of clear and effective communication, fostering sustainable organizational performance. The course focuses on developing high-level interpersonal and transferable communication skills critical for success in cloud projects.** |
| **9** | **Critical Thinking and Teamwork in Cloud Development** | **Sharpen critical thinking and teamwork skills essential for successful cloud development projects. Participants explore advanced problem-solving scenarios, understand the dynamics of effective teamwork in diverse environments, and apply critical reasoning to navigate complex challenges inherent in cloud-based projects.** |
| **10** | **Continuing Professional Development (CPD) in the Cloud Era** | **Stay at the forefront of cloud computing with a course dedicated to Continuing Professional Development (CPD). Explore CPD's pivotal role within the workplace, its significance for higher-level learning, and its strategic importance in supporting sustainable organizational performance in the dynamic landscape of the cloud era.** |