uCertify

Course Outline

Data Analytics: Principles, Tools, and Practices

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1. Exercises, Quizzes, Flashcards & Glossary

   Number of Questions
2. Expert Instructor-Led Training
3. ADA Compliant & JAWS Compatible Platform
4. State of the Art Educator Tools
5. Award Winning Learning Platform (LMS)
6. Chapter & Lessons

   Syllabus

   Chapter 1: Preface

   Chapter 2: Database Management System

   Chapter 3: Online Transaction Processing and Data Warehouse

   Chapter 4: Business Intelligence and Its Deeper Dynamics

   Chapter 5: Introducing Data Visualization

   Chapter 6: Advanced Data Visualization

   Chapter 7: Introduction to Big Data and Hadoop--Too Huge to Avoid

   Chapter 8: NoSQL and MapReduce--Too Huge to Avoid

   Chapter 9: Application of Big Data—Real Use Cases

   Chapter 10: Introducing Machine Learning - Making Machine to Run the Show

   Chapter 11: Advanced Concepts to Machine Learning: Making Machine to Run the Show

   Chapter 12: Application of Machine Learning

   Videos and How To

1. Expert Instructor-Led Training

uCertify uses the content from the finest publishers and only the IT industry's finest instructors. They have a minimum of 15 years real-world experience and are subject matter experts in their fields. Unlike a live class, you can study at your own pace. This creates a personal learning experience and gives you all the benefit of hands-on training with the flexibility of doing it around your schedule 24/7.

2. ADA Compliant & JAWS Compatible Platform

uCertify course and labs are ADA (Americans with Disability Act) compliant. It is now more accessible to students with features such as:

- Change the font, size, and color of the content of the course
- Text-to-speech, reads the text into spoken words
- Interactive videos, how-tos videos come with transcripts and voice-over
- Interactive transcripts, each word is clickable. Students can clip a specific part of the video by clicking on a word or a portion of the text.

JAWS (Job Access with Speech) is a computer screen reader program for Microsoft Windows that reads the screen either with a text-to-speech output or by a Refreshable Braille display. Student can easily navigate uCertify course using JAWS shortcut keys.

3. State of the Art Educator Tools

uCertify knows the importance of instructors and provide tools to help them do their job effectively. Instructors are able to clone and customize course. Do ability grouping. Create sections. Design grade scale and grade formula. Create and schedule assessments. Educators can also move a student from self-paced to mentor-guided to instructor-led mode in three clicks.

4. Award Winning Learning Platform (LMS)

uCertify has developed an award winning, highly interactive yet simple to use platform. The SIIA CODiE Awards is the only peer-reviewed program to showcase business and education technology's finest products and services. Since 1986, thousands of products, services and solutions have been recognized for achieving excellence. uCertify has won CODiE awards consecutively for last 7 years:

- **2014**
    1. Best Postsecondary Learning Solution

- **2015**
    1. Best Education Solution
    2. Best Virtual Learning Solution
    3. Best Student Assessment Solution
    4. Best Postsecondary Learning Solution
    5. Best Career and Workforce Readiness Solution
    6. Best Instructional Solution in Other Curriculum Areas
    7. Best Corporate Learning/Workforce Development Solution

- **2016**
    1. Best Virtual Learning Solution
    2. Best Education Cloud-based Solution
    3. Best College and Career Readiness Solution
    4. Best Corporate / Workforce Learning Solution
    5. Best Postsecondary Learning Content Solution
    6. Best Postsecondary LMS or Learning Platform
    7. Best Learning Relationship Management Solution

- **2017**
    1. Best Overall Education Solution
    2. Best Student Assessment Solution
    3. Best Corporate/Workforce Learning Solution
    4. Best Higher Education LMS or Learning Platform

- **2018**
    1. Best Higher Education LMS or Learning Platform
    2. Best Instructional Solution in Other Curriculum Areas
    3. Best Learning Relationship Management Solution

- **2019**
    1. Best Virtual Learning Solution
    2. Best Content Authoring Development or Curation Solution
    3. Best Higher Education Learning Management Solution (LMS)

- **2020**
    1. Best College and Career Readiness Solution
    2. Best Cross-Curricular Solution
    3. Best Virtual Learning Solution

5. Chapter & Lessons

uCertify brings these textbooks to life. It is full of interactive activities that keeps the learner engaged. uCertify brings all available learning resources for a topic in one place so that the learner can efficiently learn without going to multiple places. Challenge questions are also embedded in the chapters so learners can attempt those while they are learning about that particular topic. This helps them grasp the concepts better because they can go over it again right away which improves learning.

Learners can do Flashcards, Exercises, Quizzes and Labs related to each chapter. At the end of every lesson, uCertify courses guide the learners on the path they should follow.

Syllabus

Chapter 1: Preface

Chapter 2: Database Management System

- Database and database management system
- DB objects
- Conclusion
- Questions

Chapter 3: Online Transaction Processing and Data Warehouse

- Introduction

- Online transaction processing
- Need of data warehouse
- Dimensional modeling used in DW design
- Types of schemas
- ETL and other tools sets available in market
- Conclusion
- Questions

Chapter 4: Business Intelligence and Its Deeper Dynamics

- Business intelligence
- Data quality: a real challenge
- Structured Versus Unstructured
- Data Lake
- Modern business intelligence system
- Conclusion
- Questions

Chapter 5: Introducing Data Visualization

- Presenting data visualization

- Ring chart
- Stacked area chart
- Visualization dashboards
- Introduction to reporting tools
- Tableau
- High charts
- Conclusion
- Questions

Chapter 6: Advanced Data Visualization

- Types of advanced data visualization
- Data visualization trends
- Introducing data visualization tools
- Conclusion
- Questions

Chapter 7: Introduction to Big Data and Hadoop--Too Huge to Avoid

- Introduction and need of big data
- Introducing Hadoop and HDFS system

- The Hadoop distributed file system
- Conclusion
- Points to remember

Chapter 8: NoSQL and MapReduce--Too Huge to Avoid

- What is NoSQL?
- Uses of NoSQL
- Types of NoSQL database
- Programming MapReduce jobs
- What is MapReduce?
- How MapReduce works?
- Conclusion
- Points to remember

Chapter 9: Application of Big Data—Real Use Cases

- Big data applications in healthcare
- What is big data in healthcare?
- Why do we need big data analytics in healthcare?
- Twelve big data applications in healthcare

- List of 12 big data examples in healthcare
- Applications of big data in finance
- Big data applications in retail
- Big data benefits for retail
- Big data application in travel
- Big data applications in media
- Conclusion
- Questions

Chapter 10: Introducing Machine Learning - Making Machine to Run the Show

- Introduction
- Need for machine learning
- Supervised learning
- Conclusion

Chapter 11: Advanced Concepts to Machine Learning: Making Machine to Run the Show

- Predictive learning--predictive analytic and machine learning
- Predictive analytics models
- Deep learning

- Deep learning architecture
- Deep Learning Algorithms
- YOLO--You Just Look Once
- Natural Language Programming
- Conclusion
- Points to remember

Chapter 12: Application of Machine Learning

- Machine learning applications in healthcare
- Machine learning applications in finance
- Machine learning applications in retail
- Key benefits of machine learning in retail
- Wrapping up
- Advantages of predictive analytics for machine learning in retail
- Applications in Brick-and-Mortar retail
- Machine learning applications in travel
- ML, AI, and big data analytics in the travel and hospitality industry
- Machine learning applications in media

- The future of machine learning
- Conclusion
- Points to remember

You can’t stay away! Get

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