uCertify

Course Outline

Web Data Mining with Python

04 Aug 2025

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: Web Mining--An Introduction

   Chapter 3: Web Mining Taxonomy

   Chapter 4: Prominent Applications with Web Mining

   Chapter 5: Python Fundamentals

   Chapter 6: Web Scraping

   Chapter 7: Web Opinion Mining

   Chapter 8: Web Structure Mining

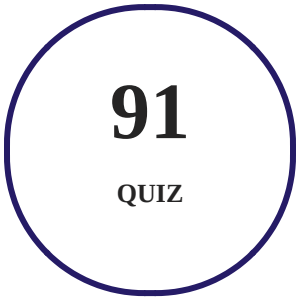
   Chapter 9: Social Network Analysis in Python

   Chapter 10: Web Usage Mining

   Videos and How To

1. Quiz

Quizzes test your knowledge on the topics of the exam when you go through the course material. There is no limit to the number of times you can attempt it.



2. 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.

3. 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.

4. 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.

5. 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

6. 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: Web Mining--An Introduction

- Introduction
- Introduction to Web mining

- World Wide Web
- Evolution of the World Wide Web
- Internet and Web 2.0
- An overview of data mining, modeling, and analysis
- Difference between data mining and Web mining
- Web mining and Python
- How Python is helpful in Web mining?
- Conclusion
- Points to Remember
- Questions
- Key terms

Chapter 3: Web Mining Taxonomy

- Introduction
- Introduction to Web mining
- Web content mining
- Web structure mining
- Web usage mining
- Key concepts

- Conclusion
- Points to remember
- Questions

Chapter 4: Prominent Applications with Web Mining

- Introduction
- Personalized customer applications-- E-commerce
- Web search
- Personalized portal and Web
- Web service performance optimization
- Process mining
- Concepts of association rules
- Association rule mining
- Components of Apriori algorithm
- Concepts of Sequential Pattern
- Association Rule Mining and Python Libraries
- Conclusion
- Points to remember

- Questions
- Key terms

Chapter 5: Python Fundamentals

- Introduction
- Introduction to Python
- Basics of Python
- Functions
- Lists
- Basics of HTML: inspecting a Web page
- Basics of Python Libraries
- Installation of Python
- Introduction to commonly used IDE's and PDE
- Installation of Anaconda
- Conclusion
- Points to remember

Chapter 6: Web Scraping

- Introduction

- Introduction to Web scraping
- Web scraping
- Data extraction and preprocessing
- Handling text, image, and videos
- Scraping dynamic websites
- Dealing with CAPTCHA
- Case study: Implementing Web scraping to develop a scraper for finding the latest news
- Conclusion
- Points to remember
- Questions
- Key terms

Chapter 7: Web Opinion Mining

- Introduction
- Concepts of opinion mining
- Document level
- Collection of review
- Working with data
- Pre-processing of data

- Part of Speech tagging
- Feature extraction
- Case study for Sentiment Analysis
- Conclusion
- Points to remember
- Questions
- Key terms

Chapter 8: Web Structure Mining

- Introduction
- Introduction to Web structure mining
- Concepts of Web structure mining
- Web structure mining
- Web graph mining
- Web information extraction
- Deep Web mining
- Web Search and Hyperlinks
- Hyperlink analysis on the Web

- Hyperlink Induced Topic Search (HITS)
- Partitioning algorithm
- Implementation in Python
- Conclusion
- Points to remember
- Questions
- Key terms

Chapter 9: Social Network Analysis in Python

- Introduction
- Introduction to Social Network Analysis
- Creating a network
- Analyzing network
- Distance measures in network connectivity
- Network influencers
- Case study on Facebook dataset
- Conclusion
- Points to remember
- Questions

- Key terms

Chapter 10: Web Usage Mining

- Introduction
- Process of Web usage mining
- Sources of data
- Types of data
- Key elements of Web usage data pre-processing
- Data modeling
- Discovery and analysis of pattern
- Predictions on transaction pattern
- Conclusion
- Points to remember
- Questions
- Key terms

You can’t stay away! Get in touch with our team to know how we can work together for the long

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