

# uCertify

## Course Outline

**Visual Analytics Fundamentals: Creating Compelling  
Data Narratives with Tableau**



18 May 2024

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## 1. Course Objective

Become a master of visual analytics and data storytelling with the course Visual Analytics Fundamentals: Creating Compelling Data Narratives with Tableau. Through interactive lessons, quizzes, assessments, and hands-on labs, you'll learn how to present data effectively. You will learn to develop skills in data preparation, visual design principles, and utilizing Tableau to create impactful data visualizations and business presentations that will effectively communicate insights to your audience. Virtual labs will help you practice Tableau in a real-time simulated environment.

## 2. Pre-Assessment

Pre-Assessment lets you identify the areas for improvement before you start your prep. It determines what students know about a topic before it is taught and identifies areas for improvement with question assessment before beginning the course.

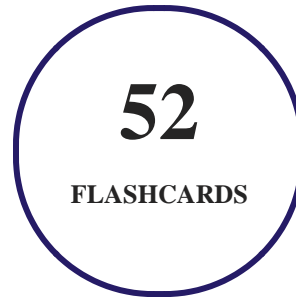
## 3. Exercises

There is no limit to the number of times learners can attempt these. Exercises come with detailed remediation, which ensures that learners are confident on the topic before proceeding.



## 4. flashcards

Flashcards are effective memory-aiding tools that help you learn complex topics easily. The flashcard will help you in memorizing definitions, terminologies, key concepts, and more. There is no limit to the number of times learners can attempt these. Flashcards help master the key concepts.



## 5. Glossary of terms

uCertify provides detailed explanations of concepts relevant to the course through Glossary. It contains a list of frequently used terminologies along with its detailed explanation. Glossary defines the key terms.



## 6. 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.

## 7. 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.

## 8. 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.

## 9. 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

## 10. 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

- Three Core Takeaways
- What You'll Learn in This Book
- Who This Course Is For
- Assumptions
- Why Tableau?
- Installing Tableau Desktop
- How to Use This Text



- Supporting Materials
- Contents of This Course

## Chapter 2: Acknowledgment

## Chapter 3: About the Author

## Chapter 4: Welcome to Visual Analytics

- A Visual Revolution
- The Evolution from Data Visualization to Visual Data Storytelling
- A Brief Look at the State of the Industry
- From Visual to Story: Bridging the Gap
- Summary

## Chapter 5: The Power of Visual Analytics

- The Science of Storytelling
- The Power of Stories
- Summary

## Chapter 6: Getting Started with Tableau

- Using Tableau

- Why Tableau?
- The Tableau Product Portfolio
- Getting Started
- Installing Tableau Desktop
- Connecting to Data
- Adding and Replacing Data Sources
- Basic Data Prep with Data Interpreter
- Navigating the Tableau Interface
- Understanding Dimensions and Measures
- Summary

## Chapter 7: Keeping Visual Analytics in Context

- Context in Action
- Exploratory Versus Explanatory Analysis
- Structuring Visual Analytic Stories
- Audience Analysis for Storytelling
- Summary

## Chapter 8: Fundamental Data Visualizations

- The Bar Chart
- The Line Chart
- Pie and Doughnut Charts
- The Scatter Plot
- The Packed Bubble Chart
- The Tree Map
- The Heat Map
- Summary

## Chapter 9: Fundamental Maps

- Types of Maps
- Summary

## Chapter 10: Design Tips for Curating Visual Analytics

- Visual Design Building Blocks
- Color
- Color Effects
- Pre-attentive Colors

- Important Color Considerations
- The Truth About Red and Green
- Lines
- Formatting, Shading, and Banding
- Shapes
- Summary

## Chapter 11: Structuring Analytics for Storytelling: Prep, Dashboards, and Stories

- Basic Data Prep in Tableau: Data Interpreter
- Storyboarding Your Visual Analytics
- Summary

## Chapter 12: Beyond Fundamentals: Advanced Visualizations

- Timelines
- Bar-in-Bar Charts
- Likert-Scale Visualizations
- Lollipop Charts
- Word Clouds
- Summary

## Chapter 13: Closing Thoughts

- Five Steps to Visual Data Storytelling
- The Important Role of Feedback
- Ongoing Learning

## Chapter 14: Appendix A. Tableau Services

- eLearning
- Instructor-Led Training
- Tableau Help
- Tableau Community
- Tableau Knowledge Base

## 11. Practice Test

**Here's what you get**

**50**

**PRE-ASSESSMENTS QUESTIONS**

**50**

**POST-ASSESSMENTS QUESTIONS**

## Features

Each question comes with detailed remediation explaining not only why an answer option is correct but also why it is incorrect.

### Unlimited Practice

Each test can be taken unlimited number of times until the learner feels they are prepared. Learner can review the test and read detailed remediation. Detailed test history is also available.

Each test set comes with learn, test and review modes. In learn mode, learners will attempt a question and will get immediate feedback and complete remediation as they move on to the next question. In test mode, learners can take a timed test simulating the actual exam conditions. In review mode, learners can read through one item at a time without attempting it.

## 12. Live Labs

The benefits of live-labs are:

- Exam based practical tasks
- Real equipment, absolutely no simulations
- Access to the latest industry technologies
- Available anytime, anywhere on any device
- Break and Reset functionality
- No hardware costs

# Lab Tasks

## **The Power of Visual Analytics**

- Creating a Story

## **Getting Started with Tableau**

- Creating a Connection in a New Workbook
- Using the Show Me Card

## **Fundamental Data Visualizations**

- Creating a Bar Chart
- Creating a Line Chart
- Creating a Doughnut Chart
- Creating a Pie Chart
- Creating a Scatter Plot
- Creating a Bubble Chart
- Creating a Tree Map
- Creating a Heat Map

## **Fundamental Maps**

- Creating a Choropleth Map
- Creating a Hierarchy

## **Design Tips for Curating Visual Analytics**

- Using the PROPER() Function
- Creating a Calculated Field
- Using the Shape Marks Card

### Beyond Fundamentals: Advanced Visualizations

- Creating a Bar-in-Bar Chart
- Creating a Divergent Stacked Bar Chart
- Creating a Stacked Bar Chart
- Creating a Lollipop Chart

### Here's what you get

**20**

LIVE LABS

**20**

VIDEO TUTORIALS

### 13. Post-Assessment

After completion of the uCertify course Post-Assessments are given to students and often used in conjunction with a Pre-Assessment to measure their achievement and the effectiveness of the exam.

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