

Course Outline for Data+ (DA0-001) CertMaster Learn, Student Guide and CertMaster Labs

Course Outline	CertMaster Learn	Student Guide eBook	CertMaster Labs
	Each of the bulleted		
	activities below is a		
	separate study task within	Review Activities are	
	the CertMaster Learn	embedded within the	
	learning plan. Students are	eBook. Videos and	
	encouraged to complete a	Practice Questions are	Labs are available at
	certain number of tasks in	found in the CompTIA	the course level or
	each login session based on	Learning Center, the	integrated as study
	their desired course	platform through which	tasks within
Overview	completion date.	the eBook is delivered.	CertMaster Learn.
Lesson 1: Identifying			
Basic Concepts of Data	Video: Job Roles using	Video: Job Roles using	
Schemas	Data+	Data+	
Topic 1A: Identify			
Relational and Non-			
Relational Databases			
Exam Objective: 1.1			Assisted Lab 1:
Identify basic concepts of	Review Activity: Relational	Review Activity: Relational	Navigating and
data schemas and	and Non-Relational	and Non-Relational	Understanding
dimensions.	Databases	Databases	Database Design
Topic 1B: Understand the			
Way We Use Tables,			
Primary Keys, and			
Normalization			
Exam Objectives: 1.1			
Identify basic concepts of			
data schemas and			
dimensions.	Video: Identifying		
2.3 Given a scenario,	Relationships in Data		
execute data	Review Activity: Tables,	Video: Identifying	
manipulation techniques.	Primary Keys, and	Relationships in Data	
5.1 Summarize important	Normalization	Review Activity: Tables,	
data governance	PBQ: Recognizing Data	Primary Keys, and	
concepts.	Design Standards	Normalization	
	Lesson 1: Practice	Lesson 1: Practice	
	Questions	Questions	
Lesson 2: Understanding			
Different Data Systems			

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Topic 2A: Describe Types			
of Data Processing and			
Storage Systems			
Exam Objective: 1.1	_	_	
Identify basic concepts of	Review Activity: Types of	Review Activity: Types of	
data schemas and	Data Processing and	Data Processing and	
dimensions.	Storage Systems	Storage Systems	
Topic 2B: Explain How			
Data Changes			
Exam Objective: 1.1			
Identify basic concepts of			
data schemas and	Review Activity: Explain	Review Activity: Explain	
dimensions.	How Data Changes	How Data Changes	
	Lesson 2: Practice	Lesson 2: Practice	
	Questions	Questions	
Lesson 3: Understanding			
Types and			
Characteristics of Data			
Topic 3A: Understand			
Types of Data	Review Activity: Types of		
7,000 01 2 000	Data		
Exam Objective: 1.2	PBQ: Comparing and		
Compare and contrast	Contrasting Qualitative and	Review Activity: Types of	
different data types.	Quantitative Data	Data	
Topic 3B: Break Down	Quartitudit's Bata	3444	
the Field Data Types			
the ricia bata types	Video: Understanding Field	Video: Understanding	Assisted Lab 2:
Exam Objective: 1.2	Data Types	Field Data Types	Understanding Data
-			
Compare and contrast	Review Activity: Field Data	Review Activity: Field Data	Types and
different data types.	Types	Types	Conversion
	Lesson 3: Practice	Lesson 3: Practice	
1 1 · C	Questions	Questions	
Lesson 4: Comparing and			
Contrasting Different			
Data Structures,			
Formats, and Markup			
Languages			
Topic 4A: Differentiate			
between Structured Data			
and Unstructured Data			
		Video: Structured Data	
Exam Objective: 1.3	Video: Structured Data	versus Unstructured Data	
Compare and contrast	versus Unstructured Data	Review Activity:	
common data structures	Review Activity: Structured	Structured and	
and file formats	and Unstructured Data	Unstructured Data	

Topic 4B: Recognize			
Different File Formats			
Exam Objective: 1.3			Assisted Lab 3:
Compare and contrast			Working with
common data structures	Review Activity: File	Review Activity: File	Different File
and file formats.	Formats	Formats	Formats
Topic 4C: Understand the			
Different Code			
Languages Used for Data			
Exam Objective: 1.3			
Compare and contrast			
common data structures	Review Activity: Code	Review Activity: Code	
and file formats.	Languages Used for Data	Languages Used for Data	
			Applied Lab 4:
			Understanding Data
			Structure and Types
	Lesson 4: Practice	Lesson 4: Practice	and Using Basic
	Questions	Questions	Statements
Lesson 5: Explaining			
Data Integration and			
Collection Methods			
Topic 5A: Understand the Processes of Extracting,			
Transforming, and			
Loading Data			
Louding Buta	Review Activity: The	Review Activity: The	
Exam Objective: 2.1	Processes of Extracting,	Processes of Extracting,	
Explain data acquisition	Transforming, and Loading	Transforming, and Loading	
concepts.	Data	Data	
Topic 5B: Explain			
API/Web Scraping and			
Other Collection			
Methods			
Exam Objectives: 2.1			
Explain data acquisition			
concepts.			
1.3 Compare and			
contrast common data	Review Activity: API/Web	Review Activity: API/Web	
structures and file	Scraping and Other	Scraping and Other	
formats.	Collection Methods	Collection Methods	

Topic 5C: Collect and Use Public and Publicly-Available Data Exam Objective: 2.1 Explain data acquisition concepts.	Video: Creating a Data Set from Census Data Review Activity: Public and Publicly Available Data	Video: Creating a Data Set from Census Data Review Activity: Public and Publicly Available Data	Assisted Lab 5: Using Public Data
Topic 5D: Use and Collect	Fublicity Available Data	Data	Public Data
Survey Data	Video: Building a Survey		
Survey Data	and Collecting Data	Video: Building a Survey	
Exam Objective: 2.1	Review Activity: Survey	and Collecting Data	
Explain data acquisition	Data	Review Activity: Survey	
concepts.	PBQ: Types of Answers	Data	
concepts.	Lesson 5: Practice	Lesson 5: Practice	
	Questions	Questions	
Lesson 6: Identifying	Questions	Questions	
Common Reasons for			
Cleansing and Profiling			
Data			
Topic 6A: Learn to Profile			
Data			
Exam Objective: 2.2			
Identify common reasons			
for cleansing and	Review Activity: Learn to	Review Activity: Learn to	Assisted Lab 6:
profiling datasets.	Profile Data	Profile Data	Profiling Data Sets
Topic 6B: Address			
Redundant, Duplicated,			
and Unnecessary Data			
Exam Objective: 2.2			Assisted Lab 7:
Identify common reasons	Review Activity:	Review Activity:	Addressing
for cleansing and	Redundant, Duplicated,	Redundant, Duplicated,	Redundant and
profiling datasets.	and Unnecessary Data	and Unnecessary Data	Duplicated Data
Topic 6C: Work with			
Missing Values			
5.5 6 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5			
Exam Objective: 2.2			
Identify common reasons			Assisted Lab 8:
for cleansing and	Review Activity: Missing	Review Activity: Missing	Addressing Missing
profiling datasets.	Values	Values	Values
Topic 6D: Address Invalid Data	Video: Correcting or	Video: Correcting or	
	Removing Invalid Data	Removing Invalid Data	
Exam Objective: 2.2	Review Activity: Invalid	Review Activity: Invalid	
Identify common reasons	Data	Data	

for cleansing and			
profiling datasets.			
Topic 6E: Convert Data to			
Meet Specifications			
Exam Objective: 2.2		Daviano Aatiniton Canonat	America de La la Co
Identify common reasons	Boylow Activity Convert	Review Activity: Convert Data to Meet	Applied Lab 9:
for cleansing and profiling datasets.	Review Activity: Convert Data to Meet Specifications	Specifications	Preparing Data for Use
profiling dutusets.	Lesson 6: Practice	Lesson 6: Practice	Ose
	Questions	Questions	
Lesson 7: Executing			
Different Data			
Manipulation			
Techniques			
Topic 7A: Manipulate			
Field Data and Create			
Variables			
	Review Activity:		
Exam Objective: 2.3	Manipulate Field Data and	Davies Astistas	A : - t - - 40.
Given a scenario, execute	Create Variables	Review Activity:	Assisted Lab 10:
data manipulation	PBQ: Recoding Numerical and Categorical Data	Manipulate Field Data and Create Variables	Recoding Data and Derived Variables
techniques. Topic 7B: Transpose and	and Categorical Data	Create variables	Derived variables
Append Data			
Appena Data			
Exam Objective: 2.3	Video: Transposing Data	Video: Transposing Data	
Given a scenario, execute	and Appending Data Sets	and Appending Data Sets	
data manipulation	Review Activity: Transpose	Review Activity: Transpose	
techniques.	and Append Data	and Append Data	
Topic 7C: Query Data			
Exam Objective: 2.3	Video: Discovering how	Video: Discovering hour	Assisted Lab 11:
Given a scenario, execute	Video: Discovering how Joins Impact Data Results	Video: Discovering how Joins Impact Data Results	Working with
data manipulation	Review Activity: Query	Review Activity: Query	Queries and Join
techniques.	Data	Data	Types
	Lesson 7: Practice	Lesson 7: Practice	,,
	Questions	Questions	
Lesson 8: Explaining			
Common Techniques for			
Data Manipulation and			
Optimization			

Topic 8A: Use Functions to Manipulate Data			
Exam Objective: 2.3 Given a scenario, execute data manipulation techniques.			
2.4 Explain common techniques for data manipulation and query optimization.	Video: Using Functions to Manipulate Data Review Activity: Functions to Manipulate Data	Video: Using Functions to Manipulate Data Review Activity: Functions to Manipulate Data	
Topic 8B: Use Common Techniques for Query Optimization		·	
Exam Objective: 2.4 Explain common techniques for data manipulation and query	Review Activity: Common Techniques for Query	Review Activity: Common Techniques for Query	
optimization.	Optimization	Optimization	
	Lesson 8: Practice Questions	Lesson 8: Practice Questions	Applied Lab 12: Building Queries and Tranforming Data
Lesson 9: Applying Descriptive Statistical Methods			
Topic 9A: Use Measures of Central Tendency			
Exam Objective: 3.1 Given a scenario, apply the appropriate descriptive statistical methods.	Video: Calculating the Measure of Central Tendency Review Activity: Measures of Central Tendency	Video: Calculating the Measure of Central Tendency Review Activity: Measures of Central Tendency	Assisted Lab 13: Using the Measures of Central Tendency
Topic 9B: Use Measures of Dispersion			
Exam Objective: 3.1 Given a scenario, apply the appropriate descriptive statistical	Review Activity: Measures	Review Activity: Measures	Assisted Lab 14: Using the Measures
methods.	of Dispersion	of Dispersion	of Variability
Topic 9C: Use Frequency and Percentages Exam Objective: 3.1 Given a scenario, apply	Video: Calculating Percentages Review Activity: Frequency and Percentages	Video: Calculating Percentages Review Activity: Frequency and Percentages	

the appropriate descriptive statistical methods.	PBQ: Use Frequencies and Percentages		
	Lesson 9: Practice Questions	Lesson 9: Practice Questions	
Lesson 10: Describing			
Key Analysis Techniques			
Topic 10A: Get Started with Analysis			
Exam Objective: 3.3 Summarize types of			
analysis and key analysis	Review Activity: Get	Review Activity: Get	
techniques.	Started with Analysis	Started with Analysis	
Topic 10B: Recognize Types of Analysis			
Exam Objective: 3.3			
Summarize types of			
analysis and key analysis	Review Activity: Types of	Review Activity: Types of	
techniques.	Analysis	Analysis	
	Lesson 10: Practice	Lesson 10: Practice	
	Questions	Questions	
Lesson 11:			
Understanding the Use			
of Different Statistical			
Methods			
Topic 11A: Understand			
the Importance of			
Statistical Tests	Video: Understanding the	Video: Understanding the	
Evam Objective: 2.2	Importance of Statistical	Importance of Statistical	
Exam Objective: 3.2 Explain the purpose of	Tests Review Activity: The	Tests Review Activity: The	
inferential statistical	Importance of Statistical	Importance of Statistical	
methods.	Tests	Tests	
Topic 11B: Break Down	10313	1000	
the Hypothesis Test			
Exam Objective: 3.2			
Explain the purpose of inferential statistical	Raviaw Activity: The	Raviow Activity: The	
methods.	Review Activity: The Hypothesis Test	Review Activity: The Hypothesis Test	
methous.	וואףטנוופטוט ופטנ	וואַרינוופאוא ופאנ	

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Topic 11C: Understand			
Tests and Methods to			
Determine Relationships			
Between Variables	Review Activity: Tests and		
	Methods to Determine		
Exam Objective: 3.2	Relationships Between	Review Activity: Tests and	
Explain the purpose of	Variables	Methods to Determine	
inferential statistical	PBQ: Chi-Square Test	Relationships Between	
methods.	versus T-Test	Variables	
	Lesson 11: Practice	Lesson 11: Practice	Applied Lab 15:
	Questions	Questions	Analyzing Data
Lesson 12: Using the			
Appropriate Type of			
Visualization			
Topic 12A: Use Basic			
Visuals			
5 01			
Exam Objective: 4.4			Assisted Lab 16:
Given a scenario, apply			Building Basic Visuals
the appropriate type of	Review Activity: Basic	Review Activity: Basic	to Make Visual
visualization.	Visuals	Visuals	Impact
Topic 12B: Build			
Advanced Visuals			
Exam Objective: 4.4	Video: Building and	Video: Building and	
Given a scenario, apply	Reading Stacked Charts	Reading Stacked Charts	
the appropriate type of	Review Activity: Advanced	Review Activity: Advanced	
visualization.	Visuals	Visuals	
Topic 12C: Build Maps	Visuais	Visuals	
with Geographical Data			
Exam Objective: 4.4	Review Activity: Maps with		
Given a scenario, apply	Geographical Data		Assisted Lab 17:
the appropriate type of	PBQ: Building Maps with	Review Activity: Maps	Building Maps with
visualization.	Geographical Data	with Geographical Data	Geographical Data
Topic 12D: Use Visuals to			
Tell a Story			
Exam Objective: 4.4			
Given a scenario, apply			Assisted Lab 18:
the appropriate type of	Review Activity: Visuals to	Review Activity: Visuals to	Using Visuals to Tell a
visualization.	Tell a Story	Tell a Story	Story
	Lesson 12: Practice	Lesson 12: Practice	
	Questions	Questions	
Lesson 13: Expressing			
Business Requirements			
in a Report Format			

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Topic 13A: Consider			
Audience Needs When			
Developing a Report			
Exam Objective: 4.1			
Given a scenario,			
1	Davison Astiniton Andisosa	Davieus Astisites Assellance	
translate business	Review Activity: Audience	Review Activity: Audience	
requirements to form a	Needs When Developing a	Needs When Developing a	
report.	Report	Report	
Topic 13B: Describe Data			
Source Considerations			
For Reporting			
	Video: Accessing Source	Video: Accessing Source	
Exam Objective: 4.3	Data and Creating Reports	Data and Creating Reports	
Given a scenario, use	_ ,		
	Review Activity: Data	Review Activity: Data	
appropriate methods for	Source Considerations for	Source Considerations for	
dashboard development.	Reporting	Reporting	
Topic 13C: Describe			
Considerations for			
Delivering Reports and			
Dashboards			
Exam Objective: 4.1			
Given a scenario,			
translate business			
requirements to form a	Davier Astirites	Davier Astiriter	
report.	Review Activity:	Review Activity:	
4.3 Given a scenario, use	Considerations for	Considerations for	
appropriate methods for	Delivering Reports and	Delivering Reports and	
dashboard development.	Dashboards	Dashboards	
Topic 13D: Develop			
Reports or Dashboards			
Exam Objective: 4.1			
Given a scenario,			
translate business			
requirements to form a			
report.	Video: Selecting Different	Video: Selecting Different	
-	_	Visualization Layouts	
4.3 Given a scenario, use	Visualization Layouts	•	
appropriate methods for	Review Activity: Develop	Review Activity: Develop	
dashboard development.	Reports or Dashboards	Reports or Dashboards	

Topic 13E: Understand Ways to Sort and Filter			
Data			
Exam Objectives: 4.1			
Given a scenario,			
translate business			
requirements to form a			
report.			
4.3 Given a scenario, use	Deview Activity Mays to	Davious Activitus Mays to	Assistant Lab 20.
appropriate methods for dashboard development.	Review Activity: Ways to Sort and Filter Data	Review Activity: Ways to Sort and Filter Data	Assisted Lab 20: Filtering Data
dustibodi a developitietit.	Lesson 13: Practice	Lesson 13: Practice	Filtering Data
	Questions	Questions	
Lesson 14: Designing		-,	
Components for Reports			
and Dashboards			
Topic 14A: Design			
Elements for Reports and			
Dashboards		l	
5 Okinsti 4.2	Video: Using Appropriate	Video: Using Appropriate	
Exam Objective: 4.2	Design Components for	Design Components for	
Given a scenario, use appropriate design	Reports and Dashboards Review Activity: Design	Reports and Dashboards Review Activity: Design	Assisted Lab 21:
components for reports	Elements for	Elements for	Designing Elements
and dashboards.	Reports/Dashboards	Reports/Dashboards	for Dashboards
Topic 14B: Utilize			
Standard Elements			
	Review Activity: Standard		
Exam Objective: 4.2	Elements for Reports and		
Given a scenario, use	Dashboards		
appropriate design	PBQ: Utilizing Standard	Review Activity: Standard	
components for reports	Elements in	Elements for Reports and	
and dashboards.	Reports/Dashboards	Dashboards	
Topic 14C: Creating a Narrative and Other			
Written Elements			
2.5.776776			
Exam Objective: 4.2			
Given a scenario, use			
appropriate design	Review Activity: Narrative	Review Activity: Narrative	
components for reports	and Other Written	and Other Written	
and dashboards.	Elements	Elements	

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Topic 14D: Understand			
Deployment			
Considerations			
	Video: Deployment	Video: Deployment	
Exam Objective: 4.3	Considerations	Considerations	
Given a scenario, use	Review Activity:	Review Activity:	
appropriate methods for	Deployment	Deployment	
dashboard development.	Considerations	Considerations	
	Lesson 14: Practice	Lesson 14: Practice	
	Questions	Questions	
Lesson 15: Distinguishing			
Different Report Types			
Topic 15A: Understand			
How Updates and Timing			
Affect Reporting			
,cot neporting	Review Activity: How		
Exam Objective: 4.5	Updates and Timing Affect	Review Activity: How	
Compare and contrast	Reporting	Updates and Timing Affect	
types of reports.	PBQ: Types of Reporting	Reporting	
Topic 15B: Differentiate	FBQ. Types of Reporting	Reporting	
1 -			
Between Types of			
Reports			
Exam Objective: 4.5			Assisted Lab 22:
Compare and contrast	Povious Activity: Types of	Povious Activity: Types of	Building an Ad Hoc
'	Review Activity: Types of	Review Activity: Types of	_
types of reports.	Reports Lesson 15: Practice	Reports Lesson 15: Practice	Report
			Applied Lab 23:
Langua 16: Sumama wining	Questions	Questions	Visualizing Data
Lesson 16: Summarizing			
the Importance of Data			
Governance			
Topic 16A: Define Data			
Governance			
Franco Objective F 1	Video las parteres of Data	Vide at Improvement of Date	
Exam Objective: 5.1	Video: Importance of Data	Video: Importance of Data	
Summarize important	Governance	Governance	
data governance	Review Activity: Data	Review Activity: Data	
concepts.	Governance	Governance	
Topic 16B: Understand			
Access Requirements and			
Policies			
Exam Objective: 5.1			
Summarize important			
data governance	Review Activity: Access	Review Activity: Access	
concepts.	Requirements and Policies	Requirements and Policies	

Topic 16C: Understand Security Requirements			
Exam Objective: 5.1 Summarize important data governance	Review Activity: Security Requirements	Review Activity: Security Requirements	Assisted Lab 24: De-
concepts. Topic 16D: Understand Entity Relationship Requirements	Requirements	Requirements	Identifying Records
Exam Objective: 5.1 Summarize important data governance concepts.	Review Activity: Entity Relationship Requirements Lesson 16: Practice	Review Activity: Entity Relationship Requirements Lesson 16: Practice	
Lesson 17: Applying Quality Control to Data	Questions	Questions	
Topic 17A: Describe Characteristics, Rules, and Metrics of Data Quality			
Exam Objective: 5.2 Given a scenario, apply data quality control concepts.	Review Activity: Characteristics, Rules, and Metrics of Data Quality	Review Activity: Characteristics, Rules, and Metrics of Data Quality	
Topic 17B: Identify Reasons to Quality Check Data and Methods of Data Validation			
Exam Objective: 5.2 Given a scenario, apply data quality control concepts.	Review Activity: Reasons to Quality Check Data and Methods of Data Validation PBQ: Validating Data	Review Activity: Reasons to Quality Check Data and Methods of Data Validation	
	Lesson 17: Practice Questions	Lesson 17: Practice Questions	
Lesson 18: Explaining Master Data Management Concepts			
Topic 18A: Explain the Basics of Master Data Management	Video: Understanding Data Management Review Activity: The Basics of Master Data	Video: Understanding Data Management Review Activity: The Basics of Master Data	
Exam Objective: 5.3	Management	Management	

Explain master data management (MDM) concepts.			
Topic 18B: Describe			
Master Data			
Management Processes			
Exam Objective: 5.3			
Explain master data	Review Activity: Master	Review Activity: Master	
management (MDM)	Data Management	Data Management	
concepts.	Processes	Processes	
	Lesson 18: Practice	Lesson 18: Practice	
	Questions	Questions	
Appendix A: Identifying			
Common Data Analytics			
Tools			
	Review Activity: Common	Review Activity: Common	
Exam Objective: 3.4	Data Analytics Tools	Data Analytics Tools	
Identify common data	Appendix A: Practice	Appendix A: Practice	
analytics tools.	Questions	Questions	



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