EDUSUM

#1 Online Certification Guide

# CIW 1D0-184

**CIW AI Data Science Specialist Certification Questions & Answers**

Exam Summary – Syllabus –Questions

**1D0-184**

**CIW AI Data Science Specialist**

**54 Questions Exam – 74.07% Cut Score – Duration of 75 minutes**

## Table of Contents:

# Know Your 1D0-184 Certification Well:

The 1D0-184 is best suitable for candidates who want to gain knowledge in the CIW Artificial Intelligence. Before you start your 1D0-184 preparation you may struggle to get all the crucial AI Data Science Specialist materials like 1D0-184 syllabus, sample questions, study guide.

But don't worry the 1D0-184 PDF is here to help you prepare in a stress free manner.
The PDF is a combination of all your queries like-

- What is in the 1D0-184 syllabus?
- How many questions are there in the 1D0-184 exam?
- Which Practice test would help me to pass the 1D0-184 exam at the first attempt?

Passing the 1D0-184 exam makes you CIW AI Data Science Specialist. Having the AI Data Science Specialist certification opens multiple opportunities for you. You can grab a new job, get a higher salary or simply get recognition within your current organization.

# CIW 1D0-184 AI Data Science Specialist Certification Details:

| | |
|---|---|
| Exam Name | CIW AI Data Science Specialist |
| Exam Code | 1D0-184 |
| Exam Price | $175 (USD) |
| Duration | 75 mins |
| Number of Questions | 54 |
| Passing Score | 74.07% |
| Schedule Exam | **PSI Store**<br>**CIW Shop** |
| Sample Questions | **CIW AI Data Science Specialist Sample Questions** |
| Practice Exam | **CIW 1D0-184 Certification Practice Exam** |

# 1D0-184 Syllabus:

| Topic | Details |
|---|---|
| **Domain 1: Data Science Overview** | |
| Fundamentals | - Define machine learning<br>- Explain data science applications for business<br>- Distinguish the difference between AI and data science<br>- List applications of data science<br>- Describe what is the purpose of data science?<br>- Explain what a correlation coefficient is and how it is calculated |
| Legal, Ethics and Privacy Considerations | - Explain societal impact of AI<br>- Explain the implications of biased predictions by data models<br>- Apply ethical reasoning in decision making scenarios<br>- Identify ethical guidelines to be applied in data science<br>- Discuss web security standards<br>- Explain data protection security methodologies<br>- Demonstrate risks associated with data privacy and integrity<br>- Demonstrate data collection security principles |
| Career | - Apply data evaluation and data modeling for business solutions<br>- Describe industries in need of data science<br>- Read scientific articles, conference papers, etc. to identify emerging analytic trends and technologies<br>- Learn about the latest developments in your professional field |
| **Domain 2: Analysis** | |
| Exploratory Data Analysis | - Use data mining techniques<br>- Explain clustering techniques and their use cases<br>- Conduct exploratory data analysis<br>- Explain how to capture properties of distributions (mean, variance, skewness, kurtosis) |

| Topic | Details |
|---|---|
| | - Analyze sets of data using descriptive statistical methods<br>- Construct frequency distributions |
| Modeling and Visualization Techniques | - Create a visualization of one or two variables in order to understand the data better<br>- Perform feature selection for supervised and unsupervised analysis<br>- Explain curse of dimensionality<br>- Explain the difference between model underfitting and overfitting<br>- Explain the different types of errors made by a predictive model<br>- Apply dimensionality reduction techniques (e.g., PCA) for data visualization<br>- Explain the difference between classification and regression<br>- Identify different performance metrics for classification (accuracy, ROC curve, AUC, F1)<br>- Analyze data using correlation and linear regression methods<br>- Describe data analyzing techniques |
| Statistics | - Provide statistical and mathematical solutions<br>- Explain linear models and generalized linear models<br>- Explain bias-variance trade off<br>- Compare and contrast different model evaluation techniques and their pros and cons<br>- Define causal inference and with which kind of data it can be performed<br>- Explain importance of checking model assumptions before deciding on final model<br>- Explain how to detect bias in a model<br>- Explain how to evaluate success of model fitting<br>- Describe statistical power and why it is important<br>- Explain difference between parametric and non-parametric models |

| Topic | Details |
|---|---|
| | - Explain how to decide which performance metrics to use given a prediction problem<br>- Explain how to create confidence intervals around estimations<br>- Explain the difference between the frequentist and Bayesian approaches to probability<br>- Explain the concept of hypothesis testing |
| **Domain 3: Managing Data** | |
| General Data Management | - Develop data structures and data warehousing solutions<br>- Explain how to analyze big datasets through distributed systems (e.g., Hadoop, MapReduce)<br>- Write SQL queries to fetch the data<br>- List the different stages in the data cycle<br>- Explain how to maintain a dataset through integration and scrubbing<br>- Demonstrate data source attributes, benefits and collection strategies<br>- Explain data selection criteria and procedures<br>- Describe methods for acquiring data |
| Querying Databases | - Types of databases and query languages<br>- Query languages strengths and weaknesses<br>- Indexes and Query efficiency |
| Data Preparation | - Handle categorical variables<br>- Explain missing value problem and handling strategies<br>- Explain what outlier is and how an outlier detection process works<br>- Demonstrate data preprocessing and normalization |
| **Domain 4: Professional Skills** | |
| Programming | - Explain basic concepts about algorithm design such as computational complexity<br>- Program in R<br>- Use matplotlib and/or seaborn to visualize data<br>- Use Pandas to represent data |

| Topic | Details |
|---|---|
| | - Use common machine learning packages<br>- Write syntax for an analysis package (e.g., SPSS, SAS, R)<br>- Program in Python<br>- Solve statistical problems using programming languages |
| Conduct Research | - Design and conduct surveys, opinion polls, or other instruments to collect data<br>- Perform an A/B test to decide of treatment effect<br>- Describe training and testing datasets and their role in analysis and modeling |
| Consulting | - Provide technical support for existing reports, software, databases, dashboards, or other tools<br>- Advise others on analytical techniques |
| Communicating Results | - Deliver oral or written presentations of the results of modeling and data analysis<br>- Compile reports, charts, papers, presentations or white papers that describe and interpret findings of analyses<br>- Prepare data visualizations to communicate complex results to non-statisticians<br>- Describe how to interpret and report data analysis results |
| Deploy Models | - Maintain and update existing models using fresh data or to make new predictions<br>- Choose a methodology for deploying machine learning models for applications<br>- Develop scalable frameworks<br>- Describe how to scale a data science solution |
| Problem Identification | - Identify problems that can be solved using machine learning models or data analyses<br>- Identify business problems or management objectives that can be addressed through data analysis<br>- Identify solutions to problems (staffing, marketing, etc.) using the results of data analysis |

# CIW 1D0-184 Sample Questions:

Question: 1

Which of these are ethical guidelines to be applied in data science?

a) Using data without consent for research
b) Transparency in how data models work
c) Manipulating data to fit preconceived notions
d) Sharing private data publicly for scrutiny

**Answer: b**

Question: 2

Which type of database is optimized for handling large volumes of unstructured data?

a) Relational database
b) NoSQL database
c) Spreadsheet
d) Paper-based database

**Answer: b**

Question: 3

What are common types of databases used in data management?

a) Spreadsheets and Word documents
b) Relational databases and NoSQL databases
c) Physical filing systems
d) Personal diaries

**Answer: b**

Question: 4

What are the strengths and weaknesses of query languages like SQL and NoSQL? (Choose two)

a) SQL excels in structured data; NoSQL is better for unstructured data
b) SQL is not suitable for any database operations
c) NoSQL offers flexibility; SQL offers better consistency
d) NoSQL cannot handle large datasets

**Answer: a, c**

Question: 5

Why is it important to understand the strengths and weaknesses of different query languages?

a) To use only one language for all database types
b) To avoid using query languages altogether
c) To choose the appropriate language based on database and requirements
d) To complicate the data retrieval process

**Answer: c**

Question: 6

Why is data normalization important in data preparation?
(Choose two)

a) To ensure that different scales of data do not impact the analysis
b) To convert all data to the same value
c) To create a uniform distribution across all variables
d) To adjust values to a common scale without distorting differences in ranges

**Answer: a, d**

Question: 7

How do classification and regression differ in data analysis?

a) Classification predicts categorical outcomes; regression predicts numerical outcomes
b) They are essentially the same in all aspects
c) Regression is used for visualizing data; classification is not
d) Classification deals with numerical predictions only

**Answer: a**

Question: 8

How can data science benefit marketing strategies?
(Choose two)

a) Ignoring market research and customer data
b) By predicting future trends and customer behaviors
c) Assisting in targeted advertising and customer segmentation
d) Solely relying on intuition without data analysis

**Answer: b, c**

Question: 9

What is the primary goal of applying statistical and mathematical solutions in data analysis?

a) To make the analysis more complex and difficult to understand
b) To use only one type of statistical method for all data sets
c) To rely solely on guesswork and intuition
d) To identify and interpret patterns and relationships in data

**Answer: d**

Question: 10

In the context of data analysis, what is the importance of understanding data distribution properties like mean and variance?

a) To disregard the variability of data
b) To gain insights into the central tendency and spread of data
c) To represent data inaccurately
d) To focus only on outliers

**Answer: b**

# Study Guide to Crack CIW AI Data Science Specialist 1D0-184 Exam:

- Getting details of the 1D0-184 syllabus, is the first step of a study plan. This pdf is going to be of ultimate help. Completion of the syllabus is must to pass the 1D0-184 exam.
- Making a schedule is vital. A structured method of preparation leads to success. A candidate must plan his schedule and follow it rigorously to attain success.
- Joining the CIW provided training for 1D0-184 exam could be of much help. If there is specific training for the exam, you can discover it from the link above.
- Read from the 1D0-184 sample questions to gain your idea about the actual exam questions. In this PDF useful sample questions are provided to make your exam preparation easy.
- Practicing on 1D0-184 practice tests is must. Continuous practice will make you an expert in all syllabus areas.