Week 1: Tools of Data Science

Quiz 1: Languages

1.
Question 1
Which of the following statements is true?

1 / 1 point

○

Python is the most popular language in data science.

○

80% of data scientists worldwide use Python.

○

Python is useful for AI, machine learning, web development, and IoT.

○

Keras, Scikit-learn, Matplotlib, Pandas, and TensorFlow are all Python libraries

◉

All of the above

Correct

2.
Question 2
Which of the following are SQL databases? (Select all that apply.)

1 / 1 point

☑

MySQL

Correct

☐

CouchDB

☐

MongoDB

☑

Oracle

Correct

☑

MariaDB

Correct

☑

PostgreSQL

3.
Question 3
Which statement is not true about Open Source and Free Software?

1 / 1 point

◉

Free Software and Open Source can be used interchangeably.

○

Free Software can always be run, studied, modified and redistributed with or without changes.

○

Most of Free Software licenses also qualify for Open Source.

○

Open Source Software can be modified without sharing the modified source code depending on the Open Source license.

4.
Question 4
Is the following statement true or false: R integrates well with other computer languages like C++, Java, C, .Net and Python.

1 / 1 point

○

True

○

False

5.
Question 5
Which of the following languages can be used for data science?

1 / 1 point

○

R

○

Julia

○

Java

○

Javascript

○
Scala

○
SQL

●
All of the above

Correct

6.
Question 6
Which of the following is not used to make Artificial Intelligence and Machine Learning possible?

1 / 1 point

●
Oracle

○
PyTorch

○
TensorFlow.js

○
Apache Spark

○
Caffe

Correct

Quiz 2: Tools

1.
Question 1
Which of the following are common tasks in Data Science? (Select all that apply)

1 / 1 point

☐
Data Management

Correct

☐
Data Integration and Transformation

Correct

☐
Data Visualization

Correct

☐
Model Building

Correct

☐
Model Deployment

Correct

☐
Model Monitoring and Assessment

Correct

2.
Question 2
Which of the following are data management tools? (Select all that apply.)

1 / 1 point

☐
GitHub

☐
MySQL

Correct

☐
PostgreSQL

Correct

☐
KubeFlow

☐
PixieDust

3.
Question 3
Which of the following are Data Integration and Transformation tools? (Select all that apply.)

1 / 1 point
☐
Cassandra

☐
Apache Kafka

Correct
☐
Apache Nifi

Correct
☐
Apache AirFlow

Correct
☐
Ceph

4.
Question 4
Which statement about JupyterLab is correct?

1 / 1 point
⊙
JuypterLab can run Python code only.

⊙
JuypterLab can run R and Python code in addition to other programming languages.

⊙
JuypterLab can run R code only.

⊙
JuypterLab can run R and Python code only.

Correct

5.
Question 5
Which statement about RStudio is correct?

1 / 1 point
⊙
RStudio is the primary choice for development in the R programming language.

○

RStudio is the primary choice for web development.

○

RStudio is the primary choice for development in the Python programming language.

Correct

6.
Question 6
Which statements about IBM Watson Studio and OpenScale are correct? (Select all that apply.)

1 / 1 point

☐

Watson Studio together with Watson OpenScale is a database management system.

☐

Watson Studio together with Watson OpenScale covers the complete development life cycle for all data science, machine learning and AI tasks.

Correct

☐

Watson Studio together with Watson OpenScale is available as a Cloud offering as well as a package running on top of Kubernetes/RedHat OpenShift in a local data center called IBM Cloud Pak for Data.

Correct

Quiz 3: APIs, Data Sets, Models

1.
Question 1
Which scientific computing library provides data structures and data analysis tools for Python?

1 / 1 point

○

TensorFlow

◉

Pandas

○

YumPies

○

Seahorse

Correct

2.
Question 2
What does the acronym API stand for?

1 / 1 point

○

Abstract Programming Interface

◉

Application Programming Interface

○

Algorithmic Programming Interface

○

Abstract Python Interface

Correct

3.
Question 3
True or False: Open data is always distributed under a Community Data License Agreement.

1 / 1 point

○

True

◉

False

Correct

4.
Question 4
Which of the following is not a type of Machine Learning?

1 / 1 point

○
Supervised learning

◉
Supervised teaching

○
Reinforcement learning

○
Unsupervised learning

Correct

5.
Question 5
Which of the following is NOT a deep learning framework?

1 / 1 point

○
Keras

◉
Tommy

○
PyTorch

○
TensorFlow

Correct

6.
Question 6
Fill in the blank: The MAX model-serving microservices expose a _____ that applications use to consume a model.

1 / 1 point

○
Java API

○
Python API

◉
REST API

Scala API

Correct

Scala API

Correct

Final Assessment

1.
Question 1
Which are the three most used languages for data science? (Select all that apply.)

1 / 1 point

☑
Python

Correct

☑
SQL

Correct

☐
Scala

☑
R

Correct

☐
Java

2.
Question 2
Is it possible to use machine learning within a web browser with Javascript?

1 / 1 point

◉
Yes

○
No

Correct

3.
Question 3
Comma Separated Values (CSV) is a commonly used format to store:

1 / 1 point

○
Hierarchical or network data

○
Tabular data

◉
All of the above

4.
Question 4
Classification models can be used to determine whether:

1 / 1 point

○

An email is likely spam.

○

A video contains a specific sound.

○

An image contains a dog.

◉

All of the above.

5.
Question 5
Fill in the blank: _____ is the heart of every organization.

1 / 1 point

○

The cloud

◉

Data

○

Open source

○

Integration

6.
Question 6
What does the "BI" in BI Tools stand for?

1 / 1 point

○

Business Integration

○

Build Information

○

Business Intelligence

◉
Build Integration

Correct