Congratulations! You passed!

Grade received 100% **To pass** 80% or higher

Go to next item

Intro to MLEP

Total points 10

1. Static datasets are used for production ML modeling. **1 / 1 point**

- (•) False
- ( ) True

Correct
That's it! Dynamic real-world data is used.

2. In production ML, the design priority is fast training. **1 / 1 point**

- ( ) Yes
- (•) No

Correct
Correct! Fast training and choosing a high-performance algorithm are the design priorities for prototypes or research ML.

3. Developers adhere to modern software development to produce low-maintenance software, and to address project evolution. Select all the key aspects of modern software development (Check all that apply): **1 / 1 point**

- [x] Testability

Correct
Yes! The data entering the system is continuously monitored and tested.

- [x] Best practices

Correct
Perfect! Software development best practices must be resolved.

- [x] Monitoring

Correct
Right on! The deployed model's performance is properly evaluated.

- [ ] Fast Training

4. Model-performance needs to be continuously monitored, and new data, ingested and re-trained. **1 / 1 point**

- (•) Yes
- ( ) No

Correct
Good job! After deployment, it's necessary to continuously evaluate the model's performance.

5. ML pipeline workflows are almost always DAGs. **1 / 1 point**

- (•) True
- ( ) False

Correct
Well done! The components of an ML pipeline are scheduled based on dependencies defined by a DAG.

6. TensorFlow Extended (TFX) is an end-to-end platform for deploying production ML pipelines. **1 / 1 point**

- (•) Yes
- ( ) No

Correct
You got it right! TFX is used to create and manage a production line.

7. Production machine learning combines which two key disciplines? **1 / 1 point**

- [x] Machine learning development

  Correct
  Nice going! ML Development focuses on specific issues related with data and model predictions quality.

- [ ] Feature selection and engineering
- [x] Modern software development

  Correct
  Keep it up! Well-designed software that adheres to best practices is key for the success of a production grade machine learning system.

- [ ] Software testing

8. What are the unique challenges to overcome in a production-grade ML system? (Check all that apply) **1 / 1 point**

- [ ] Deploying the model to serve requests.
- [x] Building integrated ML systems.

  Correct
  Very well! ML systems perform all operations starting from ingesting the data into the system to deployment.

- [ ] Training the model on real world data.
- [ ] Assessing model performance.
- [x] Optimizing computational resources and costs.

  Correct
  Absolutely! You want your ML system to be as frugal as possible.

- [x] Continually operating while in production.

  Correct
  Right on track! ML systems need to be flexible to operate while the system stages or modules are being changed or redesigned.

- [x] Handling continuously changing data.

  Correct
  Indeed! Data will change over the life cycle of a production system, which can harm its performance.

9. **Production grade machine learning** challenges are addressed by implementing an important concept: **1 / 1 point**

- (•) Machine learning pipelines
- ( ) Directed Acyclic Graphs (DAGs)
- ( ) Orchestrators
- ( ) Tensorflow Extended (TFX)

  Correct
  Spot on! ML pipelines provide support for automating, monitoring and maintaining a model as you continue to train it over its lifetime.

10. TensorFlow Lite is a deep learning framework to deploy TFX pipelines into: **1 / 1 point**

- (•) Mobile devices
- ( ) Web browser
- ( ) Servers

  Correct
  That's it! Tensorflow Lite is the tool for deploying TFX pipeline into mobile and IoT devices.