Fundamentals of Data science and Machine Learning

Concepts, Techniques and Tools to Build Intelligent Systems

Module 0
Introduction

Ali Samanipour

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Ali Samanipour
linkedin.com/in/Samanipour

Lets Know Each Other

Ali Samanipour

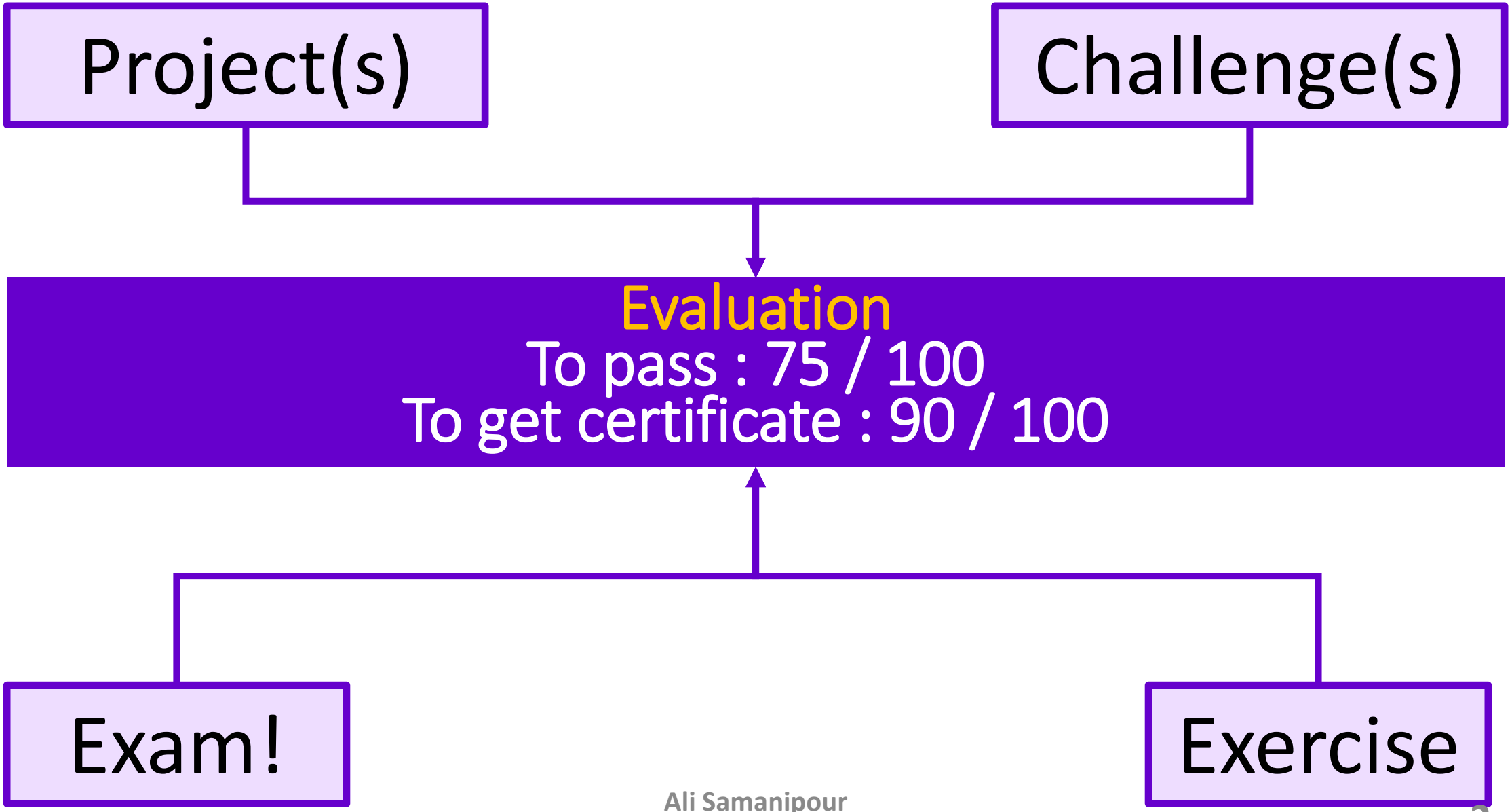
Technical Product Manager | Software Architecture | Software Engineer

alisamanipour.official@gmail.com

linkedin.com/in/samanipour

Summary

A Technical Software Product Manager with strong knowledge and background in software engineering(Software Architecture, Software Technical Design & Software Development) and agile software development management, interested in working on decentralized blockchain-oriented (Specially Web3.0 DApps & Enterprise grade permission-based blockchain-oriented software), token economic-based (Tokenomics), financial technologies(Fintech), and smart IoT-based cyber-physical systems and applications.


Project(s)
Challenge(s)
Evaluation
To pass : 75 / 100
To get certificate : 90 / 100
Exam!
Exercise

Course structure

Python Programming	Introduction to DS, AI and ML	Data Science
Mathematical Concepts Behind ML Algorithms	Machine Learning Projects Pipeline	Exploratory Data Analysis
Classification	Clustering	Liner Regression
Logistic Regression	Decision Tree	Supported Vector Machine (SVM)
Naïve Bayes Classifier	Random Forest	Next Step

Exercises & Quizzes

Challenges

Projects

Class Rules

Learn by doing, instead of read and memorize

Collaborate and be active

Everything depends on you

Course References

[1] S. J. Russell and P. Norvig, *Artificial Intelligence: A Modern Approach*. Pearson, 2021.

[2] T. Ghosh and S. K. B. Math, *Practical Mathematics for AI and Deep Learning: A Concise yet In-Depth Guide on Fundamentals of Computer Vision, NLP, Complex Deep Neural Networks and Machine Learning (English Edition)*. BPB Publications, 2022.

[3] M. P. Deisenroth, A. A. Faisal, and C. S. Ong, *Mathematics for Machine Learning*. Cambridge University Press, 2020.

[4] T. V. Geetha and S. Sendhilkumar, *Machine Learning: Concepts, Techniques and Applications*. CRC Press LLC, 2023.

[5] A. Géron, *Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow: Concepts, Tools, and Techniques to Build Intelligent Systems*. O'Reilly Media, 2023.

[6] O. Theobald, *Machine Learning for Absolute Beginners: A Plain English Introduction (Third Edition)*. Scatterplot Press, 2021.

Accessing Course Resource

linkedin.com/in/Samanipour

t.me/SamaniGroup

github.com/Samanipour