Microsoft Azure

Always Available, Effortlessly Accessible, and Endlessly Reliable

DP – 100

Designing and Implementing a Data Science Solution on Azure

Overview

As a candidate for this certification, you should have subject matter expertise in applying data science and machine learning to implement and run machine learning workloads on Azure.

Your responsibilities for this role include:

- Designing and creating a suitable working environment for data science workloads.
- Exploring data.
- Training machine learning models.
- Implementing pipelines.
- Running jobs to prepare for production.
- Managing, deploying, and monitoring scalable machine learning solutions.

As a candidate for this certification, you should have knowledge and experience in data science by using:

- Azure Machine Learning
- MLflow

Prerequisites

Required

- Creating cloud resources in Microsoft Azure.
- Training and validating machine learning models using common frameworks like Scikit-Learn, PyTorch, and TensorFlow.
- Working with containers

Recommended

- [AI-900T00: Microsoft Azure AI Fundamentals](#)

Audience Profile

This course is designed for data scientists with existing knowledge of Python and machine learning frameworks like Scikit-Learn, PyTorch, and Tensorflow, who want to build and operate machine learning solutions in the cloud.
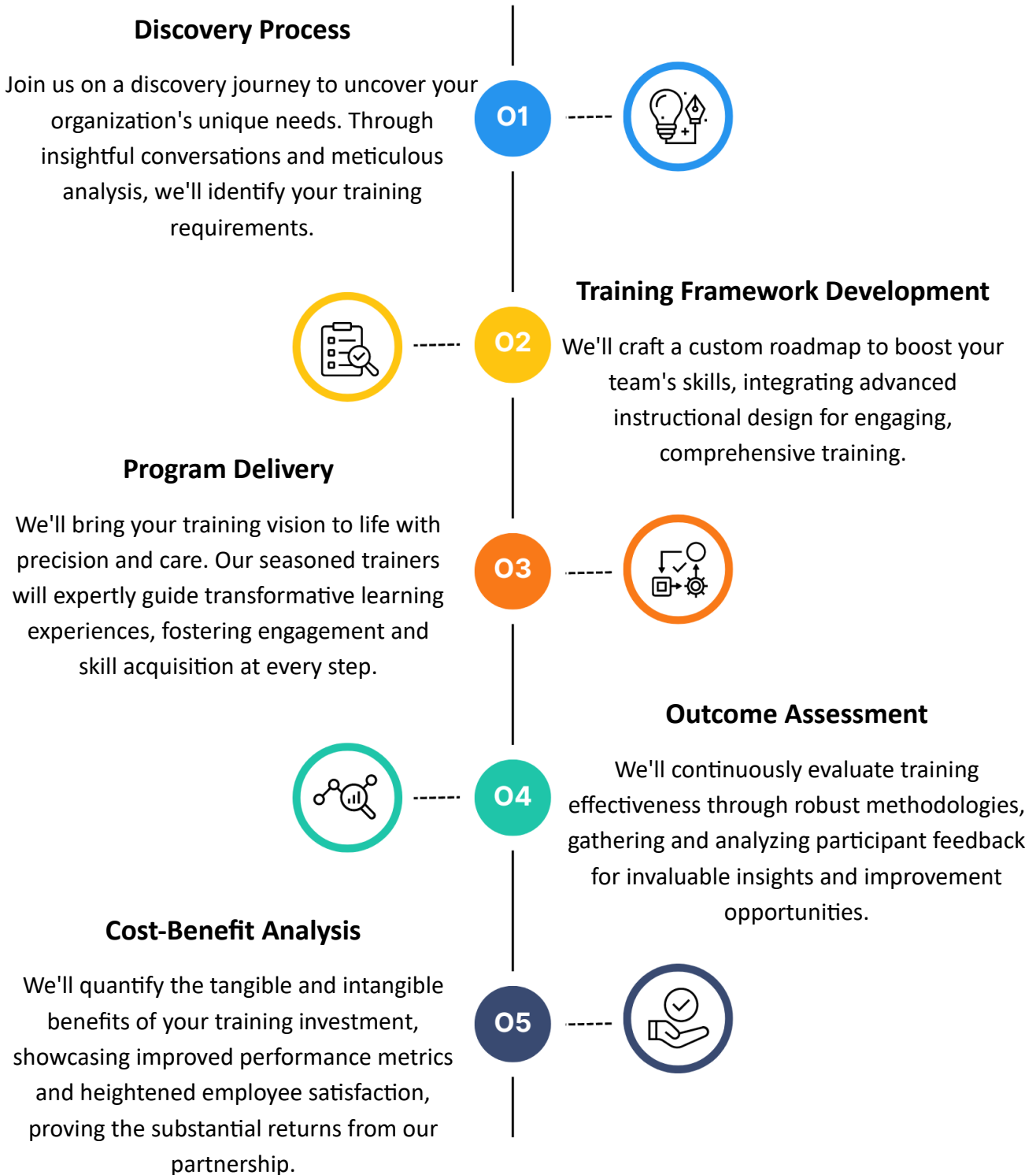
Course Level

- Intermediate

Course Duration

- 4 Day – 32 Hours

Creating Tailor - Made Training Programs to Meet Your Specific Goals

Discovery Process

Join us on a discovery journey to uncover your organization's unique needs. Through insightful conversations and meticulous analysis, we'll identify your training requirements.

O1

O2

Training Framework Development

We'll craft a custom roadmap to boost your team's skills, integrating advanced instructional design for engaging, comprehensive training.

Program Delivery

We'll bring your training vision to life with precision and care. Our seasoned trainers will expertly guide transformative learning experiences, fostering engagement and skill acquisition at every step.

O3

O4

Outcome Assessment

We'll continuously evaluate training effectiveness through robust methodologies, gathering and analyzing participant feedback for invaluable insights and improvement opportunities.

Cost-Benefit Analysis

We'll quantify the tangible and intangible benefits of your training investment, showcasing improved performance metrics and heightened employee satisfaction, proving the substantial returns from our partnership.

O5

Course Outline

Learn how to operate machine learning solutions at cloud scale using Azure Machine Learning. This course teaches you to leverage your existing knowledge of Python and machine learning to manage data ingestion and preparation, model training and deployment, and machine learning solution monitoring with Azure Machine Learning and MLflow.

Module 1: Design a machine learning solution
- Lesson: Design a data ingestion strategy for machine learning projects
- Lesson: Design a machine learning model training solution
- Lesson: Design a model deployment solution

Module 2: Explore the azure machine learning workspace
- Lesson: Explore Azure Machine Learning workspace resources and assets
- Lesson: Explore developer tools for workspace interaction
- **Exercise –** Explore the Azure Machine Learning workspace
- **Exercise –** Explore developer tools for workspace interaction

Module 3: Make data available in Azure Machine Learning
- Lesson: Make data available in Azure Machine Learning
- **Exercise –** Make data available in Azure Machine Learning

Module 4: Work with compute in Azure Machine Learning
- Lesson: Work with compute targets in Azure Machine Learning
- Lesson: Work with environments in Azure Machine Learning
- **Exercise –** Work with compute resources in Azure Machine Learning
- **Exercise –** Work with environments in Azure Machine Learning

Module 5: Find the best model with Automated Machine Learning
- Lesson: Explore Automate Machine Learning
- Lesson: Find the best classification model with Automated Machine Learning
- **Exercise –** Find the best classification model with Automated Machine Learning

Module 6: Track model training in notebooks with MLflow
- Lesson: Track model training in notebooks with MLflow
- **Exercise –** Track model training in notebooks with MLflow

Module 7: Train models with scripts in Azure Machine Learning
- Lesson: Run a training script as a command job in Azure Machine Learning
- Lesson: Track model training with MLflow in jobs
- Lesson: Perform hyperparameter tuning with Azure Machine Learning
- **Exercise –** Run a training script as a command job in Azure Machine Learning
- **Exercise –** Use MLflow to track training jobs
- **Exercise –** Perform hyperparameter tuning with a sweep job

Module 8: Optimize model training in Azure Machine Learning
- Lesson: Run pipelines in Azure Machine Learning
- **Exercise –** Run pipelines in Azure Machine Learning

Module 9: Manage and review models in Azure Machine Learning
- Lesson: Register an MLflow model in Azure Machine Learning
- Lesson: Manage and compare models in Azure Machine Learning
- **Exercise –** Log and register models with MLflow
- **Exercise –** Create and explore the Responsible AI dashboard

Module 10: Deploy and consume models with Azure Machine Learning
- Lesson: Deploy a model to a managed online endpoint
- Lesson: Deploy a model to a batch endpoint
- **Exercise –** Deploy a model to an online endpoint
- **Exercise –** Deploy a model to a batch endpoint

Module 11: Design a Machine Learning Operations (MLOps) Solution
- Lesson: Design a machine learning operations (MLOps) solution

Indus Tech Services

Who We Are....

Indus Tech Services is an IT company that specializes in providing comprehensive training, consulting & implementation services for software solutions designed to address the diverse business challenges faced by organizations today. With a passion for technology and a deep understanding of business processes, Indus Tech is committed to empowering businesses to optimize their operations, boost productivity, and drive sustainable growth.

Indus Tech Services and Microsoft Partnership

As a proud **Microsoft Partner**, **Indus Tech Services** is uniquely equipped to deliver top-tier training and certification programs designed to meet the evolving needs of today's workforce. Our partnership with Microsoft allows us to offer direct access to the latest tools, resources, and industry insights, ensuring that our courses are aligned with the most current technology trends. This collaboration enables us to provide unparalleled support to our students, helping them gain the skills and knowledge required to excel in their careers. By choosing Indus Tech Services, you're not just learning; you're gaining a competitive edge with Microsoft-backed expertise and certification.

Why Choose Us...

From time to time, life serves up a profound nudge, urging us to step beyond our routines and make a difference in the world. Indus Tech Services emerged from one such compelling wake-up call. We are not just a company; we are a dedicated force with a belief in providing solutions to organizations, regardless of their size, and we infuse a human touch into everything we do.

Our Expertise

With over 25 years of collective experience navigating the intricacies of daily business transactions, irrespective of geographical, cultural, time zone, or language barriers, our team has honed their expertise to meet any challenge head-on. This wealth of experience has armed our resources with an unparalleled understanding and skill set to tackle a broad spectrum of obstacles.

Training

With two decades of unwavering commitment and a global footprint, our company is a true pioneer in the fields of linguistic, transactional, technical, and behavioural training for some of the world's largest corporate entities. Our unparalleled expertise has been refined through years of dedication and innovation, making us the go-to choice for businesses seeking transformative training solutions.

Consulting

Our company has been at the forefront of providing world-class IT consulting services to organizations spanning the globe. With an extensive and proven track record, we have honed our expertise to meet the ever-evolving technological needs and challenges faced by businesses, regardless of their scale or industry.

Implementation

Our experience covers a broad spectrum of IT implementation services, including system integration, software deployment, network architecture, cloud migration, and infrastructure setup. We understand that the successful execution of IT projects is pivotal to an organization's growth and efficiency. Therefore, we bring a depth of knowledge and a commitment to delivering results that set us apart.

To know more contact us at info@industechservices.com or call us at +91 - 99961 61170.