



**ZEAL EDUCATION SOCIETY'S
ZEAL COLLEGE OF ENGINEERING AND RESEARCH
DEPARTMENT OF ARTIFICIAL INTELLIGENCE & DATA SCIENCE**



Date -03/05/2022

Report on

Microsoft certification Program for Azure AI fundamentals

Mastering the basics in AI can help you jump-start your career and get ready to dive deeper into the other technical opportunities Azure offers. Artificial intelligence (AI) opens doors into possibilities that might have seemed like science fiction only yesterday. Using AI, you can build solutions, improve your apps and advance technology in many fields, including healthcare, financial management, and environmental protection, to name just a few.

For this, Department of Artificial Intelligence & Data Science, Zeal Collage of Engineering and Research Pune has participated in Microsoft certification Program for Azure AI fundamentals(30 hrs). This certification program is organized in association with ATS Infotech Pvt Ltd.

Curriculum:-

Section	Weight	Objectives
Describe Artificial Intelligence workloads and considerations	15-20%	Identify features of common AI workloads <ul style="list-style-type: none"> • identify prediction/forecastingworkloads • identify features of anomaly detection workloads • identify computer vision workloads • identify natural language processing or knowledge mining workloads • identify conversational AI workloads Identify guiding principles for responsible AI <ul style="list-style-type: none"> • describe considerations for fairness in an AI solution • describe considerations for reliability and safety in an AI solution • describe considerations for privacy and security in an AI solution • describe considerations for inclusiveness in an AI solution • describe considerations for transparency in an AI solution • describe considerations for accountability in an AI solution
Describe fundamental	30-	Identify common machine learning types



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Section	Weight	Objectives
principles of machine learning on Azure	35%	<ul style="list-style-type: none"> • identify regression machine learning scenarios • identify classification machine learning scenarios • identify clustering machine learning scenarios <p>Describe core machine learning concepts</p> <ul style="list-style-type: none"> • identify features and labels in a dataset for machine learning • describe how training and validation datasets are used in machine learning • describe how machine learning algorithms are used for model training • select and interpret model evaluation metrics for classification and regression <p>Identify core tasks in creating a machine learning solution</p> <ul style="list-style-type: none"> • describe common features of data ingestion and preparation • describe feature engineering and selection • describe common features of model training and evaluation • describe common features of model deployment and management <p>Describe capabilities of no-code machine learning with Azure Machine Learning studio</p> <ul style="list-style-type: none"> • automated ML UI • azure Machine Learning designer
Describe features of computer vision workloads on Azure	15-20%	<p>Identify common types of computer vision solution:</p> <ul style="list-style-type: none"> • identify features of image classification solutions • identify features of object detection solutions • identify features of semantic segmentation solutions • identify features of optical character recognition solutions • identify features of facial detection, facial recognition, and facial analysis solutions <p>Identify Azure tools and services for computer vision tasks</p> <ul style="list-style-type: none"> • identify capabilities of the Computer Vision service • identify capabilities of the Custom Vision service • identify capabilities of the Face service



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Section	Weight	Objectives
		<ul style="list-style-type: none">identify capabilities of the Form Recognizer service
Describe features of Natural Language Processing (NLP) workloads on Azure	15-20%	<p>Identify features of common NLP Workload Scenarios</p> <ul style="list-style-type: none">identify features and uses for key phrase extractionidentify features and uses for entity recognitionidentify features and uses for sentiment analysisidentify features and uses for language modelingidentify features and uses for speech recognition and synthesisidentify features and uses for translation <p>Identify Azure tools and services for NLP workloads</p> <ul style="list-style-type: none">identify capabilities of the Text Analytics serviceidentify capabilities of the Language Understanding service (LUIS)identify capabilities of the Speech serviceidentify capabilities of the Translator Text service
Describe features of conversational AI workloads on Azure	15-20%	<p>Identify common use cases for conversational AI</p> <ul style="list-style-type: none">identify features and uses for webchat botsidentify features and uses for telephone voice menusidentify features and uses for personal digital assistantsidentify common characteristics of conversational AI solutions <p>Identify Azure services for conversational AI</p> <ul style="list-style-type: none">identify capabilities of the QnA Maker serviceidentify capabilities of the Azure Bot service

Assessment Procedure:-

The AI-900: Microsoft Azure AI Fundamentals assessment is designed to test your knowledge on the topics included in the Microsoft AI-900 exam.

This assessment is aimed at candidates with both technical and non-technical backgrounds who want to test their skills.



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Candidates should have knowledge of machine learning (ML) and AI workloads and how to implement them on Azure. Data science and software engineering experience are not required. However, a foundational knowledge of cloud basics and client-server applications would be beneficial.

This assessment contains 30 questions from the MeasureUp associated practice test. It does not include explanations or references as this is an assessment-only product.

12 students from AI&DS Department successfully completed the the training program and appeared for the certification examination on 24 and 25 March 2022.

Staff Co-Ordinator

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