Module	In Days	In Hours	Day #	Hourly Distribution	Course Content (20-25%)	Labs (75-80%)	BLOs Mapping	Software Used	Trainer Islamabad
Module 1: Python for Data Science and Machine Learning	5 Days	40 Hours	Day 1	9:00 AM to 10:00 AM	Module 1.1: Understanding Data Science and Its Significance	**No Labs**	BLO-1	Anaconda, Jupyter	
				10:00 AM to 10:30 AM (Tea Break)					
				10:30 AM to 12:00 PM	Module 1.2: History of Data Science and its evolution	No Labs	BLO-1		
				12:00 PM to 1:00 PM	Module 1.3: Applications of Data Science in various fields		BLO-1		
				1:00 PM to 2:00 PM (Lunch Break)					
				2:00 PM to 3:00 PM	Module 1.4: Machine learning, deep learning, artificial intelligence, and their differences	No Labs	BLO-1		
				3:00 PM to 4:00 PM	Module1.5: Job market for data scientists, machine learning engineers, and AI experts		BLO-1		
				4:00 PM to 4:30 PM (Tea Break)					
				4:30 PM to 5:00 PM	Module 1.6: Introduction to course contents	**No Labs**	BLO-1		
			Day 2	9:00 AM to 10:00 AM		Lab 1: Variables in Python	BLO-2	Anaconda, Jupyter	Dr. Mirza Tauseef/ Engr. Misbah
				10:00 AM to 10:30 AM (Tea Break)					
				10:30 AM to 11:00 AM	Module 1.7: Data Types in python	Lab 2: Initialization of Variables in Python	BLO-2		
				11:00 AM to 1:00 PM		Lab 3:Mathematics in Python and Printing	BLO-2		
				1:00 PM to 2:00 PM (Lunch Break)					
				2:00 PM to 4:00 PM		Lab 4: Lists in Python.	BLO-2		
				4:00 PM to 4:30 PM (Tea Break)					
				4:30 PM to 5:00 PM		Lab 5: Tuples in Python	BLO-2		
			Day 3	9:00 AM to 1:00 PM		Lab 6: Dictionaries in Python	BLO-2		
				10:00 AM to 10:30 AM (Tea Break)					
				1:00 PM to 2:00 PM (Lunch Break)					
				2:00 PM to 3:00 PM	Module 1.8: Indexing in Python	Lab 7: Indexing in Python in terms of Lists, Tuples, and Dictionaries	BLO-2		
				3:00 PM to 5:00 PM		Lab 8: Slicing in Python for 1D, 2D, 3D, and higher orders data	BLO-2		
				4:00 PM to 4:30 PM (Tea Break)					
			Day 4	9:00 AM to 9:30 AM		Lab 9: List comprehensions in Python	BLO-2		
				9:30 AM to 10:00 AM		Lab 10: Input and Output in Python	BLO-2		
				10:00 AM to 10:30 AM (Tea Break)					
				10:00 AM to 11:00 AM	Module 1.9: Flow Control in Python	Lab 11: If-else in Python	BLO-2		
				11:00 AM to 12:00 PM		Lab 12: For Loops in Python	BLO-2		
				12:00 PM to 1:00 PM		Lab 13: While Loops in Python	BLO-2		
				1:00 PM to 2:00 PM (Lunch Break)					
				2:00 PM to 3:00 PM	Module 1.10: Functions in Python	Lab 14: Functions in Python	BLO-2		
				3:00 PM to 4:00 PM		Lab 15: Local and Global Variables in Python	BLO-2		
				4:00 PM to 4:30 PM (Tea Break)					
				4:30 PM to 5:00 PM		Lab 16: Printing and String Interpolation in Python	BLO-2		
			Day 5	9:00 AM to 9:30 AM		Lab 17: Function Error Checking and Handling.	BLO-2		
				9:30 AM to 10:00 AM		Lab 18: Copies and Referents in Python	BLO-2		
				10:00 AM to 10:30 AM (Tea Break)					
				10:30 AM to 11:00 AM	Module 1.11: Libraries in Python	Lab 19: Enumerate and Zip in Python	BLO-2		
				11:00 AM to 12:00 PM		Lab 20: Python Library (NumPy)	BLO-2		
				12:00 PM to 1:00 PM		Lab 21: Broadcasting in NumPy	BLO-2		
				1:00 PM to 2:00 PM (Lunch Break)					
				2:00 PM to 4:00 PM		Lab 22: Python Library (Pandas)	BLO-2 / BLO-2		
				4:00 PM to 4:30 PM (Tea Break)					
				4:30 PM to 5:00 PM		Weekly Assesment: Prgraming quiz of Module-1			

Module 3: Advanced Statistical Methods	5 Days	40 Hours	Day 1	9:00 AM to 10:00 AM	Module 3.1: Logistic Regression. Module 3.2: Accuracy		BLO-3	Anaconda, Jupyter	Dr. Aleem/ Engr. Misbah
				10:00 AM to 10:30 AM (Tea Break)					
				10:30 AM to 1:00 PM		Lab 40: Logistic Regression Using Python. Lab 41: Logistic Regression Using Sklearn	BLO-3		
				1:00 PM to 2:00 PM (Lunch Break)					
				2:00 PM to 4:00 PM	Module 3.3: Under Fitting and Over Fitting	Lab 42: Computing Accuracy Using Python	BLO-3		
				4:00 PM to 4:30 PM (Tea Break)					
				4:30 PM to 5:00 PM	Module 3.4: Difference between Logistic Regression and Linear Regression	Lab 43: Testing the Models	BLO-3		
			Day 2	9:00 AM to 10:00 AM	Module 3.5: Cluster Analysis	Lab 44: Clustering in Python	BLO-3		
				10:00 AM to 10:30 AM (Tea Break)					
				10:30 AM to 1:00 PM	Module 3.6: Examples of Clusters	Lab 45: Clustering Categorical Data	BLO-3		
				1:00 PM to 2:00 PM (Lunch Break)					
				2:00 PM to 4:00 PM	Module 3.7: Difference between Classification and Clustering	Lab 46: Choosing number of Clusters	BLO-3		
				4:00 PM to 4:30 PM (Tea Break)					
				4:30 PM to 5:00 PM	Module 3.8: K means clustering				
			Day 3	9:00 AM to 10:00 AM	Module 3.9: Unsupervised learning and its applications	Lab 47: PCA in practice	BLO-3		
				10:00 AM to 10:30 AM (Tea Break)					
				10:30 AM to 1:00 PM	Module 3.10: Principal Component Analysis (PCA)	Lab 48: SVD in practice	BLO-3		
				1:00 PM to 2:00 PM (Lunch Break)					
				2:00 PM to 4:30 PM	Module 3.11: Singular Value Decomposition (SVD)				
				4:00 PM to 4:30 PM (Tea Break)					
			Day 4	9:00 AM to 10:00 AM	Module 3.12: What is random forest and how does it work?		BLO-3		
				10:30 AM to 1:00 PM	Module 3.13: Bagging and the bootstrap	Lab 49: Random Forest in Python	BLO-3		
					Module 3.14: Random forest hyperparameters (e.g., number of trees, depth of trees)		BLO-3		
				2:00 PM to 3:30 PM	Module 3.15: Pros and cons of random forest		BLO-3		
			Day 5	9:00 AM to 10:00 AM	· Addressal of issues faced by trainees	No Labs		Anaconda, Jupyter	
				10:00 AM to 10:30 AM (Tea Break)					
				10:30 AM to 1:00 PM	· Guest Lecture (Case Studies and applications of classical machine learning algorithms in industries)	No Labs	BLO-3		
				1:00 PM to 2:00 PM (Lunch Break)					
				2:00 PM to 4:00 PM	· Co-curricular activity	No Labs			
				4:00 PM to 4:30 PM (Tea Break)					
				4:30 PM to 5:00 PM		Weekly Assesment: Prgraming quiz of Module-3			
e 04: ANN	Days	Hours	Day 1	9:00 AM to 10:00 AM	Module 4.1: Perceptron and ANN architecture	Lab 50: ANN for regression	BLO-4	Anaconda, Jupyter	Dr. Aleem/ Engr. Misbah
				10:30 AM to 1:00 PM	Module 4.2: Forward Propagation		BLO-4		
					Module 4.3: Backward Propagation		BLO-4		
				2:00 PM to 4:00 PM		Lab 50: ANN for regression. Lab 51: Exercise: Manipulate Regression	BLO-4 BLO-4		
			Day 2	9:00 AM to 10:00 AM	Module 4.4: Classification Using ANN		BLO-4		
					Module 4.5: Learning Rate		BLO-4		
				10:30 AM to 1:00 PM		Lab 52: ANN based classification using PyTorch or TensorFlow			
						Lab 53: Effects of Learning Rate (PyTorch or TensorFlow)			
				2:00 PM to 4:00 PM	Module 4.6: Multiple Layers in ANN	Lab 54: Multiple Layers ANN based Classification (PyTorch or TensorFlow)	BLO-4		
				4:30 PM to 5:00 PM		Lab 54: Multiple Layers ANN based Classification (PyTorch or TensorFlow)	BLO-4		
			Day 3	9:00 AM to 10:00 AM	Module 4.7: ANN for Multiple Output Data		BLO-4		
				10:30 AM to 5:00 PM		Lab 55: Classification of IRIS dataset (PyTorch or TensorFlow)	BLO-4		

Module	Days	Hours	Day	Time	Topic	Lab	BLO	Software	Instructor
Module	5	40	Day 4	9:00 AM to 10:00 AM	Module 4.8: Number of Neurons and Layers in ANN		BLO-4	Anaconda, Jupyter	
				10:30 AM to 1:00 PM		Lab 56: Effects of Units and Layers (PyTorch or TensorFlow)	BLO-4		
				2:00 PM to 4:00 PM		Lab 57: Analyzing the effects of depth and breadth (PyTorch or TensorFlow)	BLO-4		
				4:30 PM to 5:00 PM		Lab 58: Using Sequential or Class for AI model creation (PyTorch or TensorFlow)	BLO-4		
			Day 5		**Module 4.10: Weekly Assessment:** *Out the following one task will be performed along with the "Weekly Assessment"*	No Labs		Anaconda, Jupyter	
				9:00 AM to 10:00 AM	· Addressal of issues faced by trainees				
				10:00 AM to 10:30 AM (Tea Break)					
				10:30 AM to 1:00 PM	· Guest Lecture	**No Labs**			
				1:00 PM to 2:00 PM (Lunch Break)					
				2:00 PM to 4:00 PM	· Co-curricular activity	**No Labs**			
				4:00 PM to 4:30 PM (Tea Break)					
				4:30 PM to 5:00 PM		Weekly Assesment: Prgraming quiz of Module-4			
Module 05: Overfitting, Cross validation, and Regularization	5 Days	40 Hours	Day 1		Module 5.1: overfitting	Lab 59: Cross validation using manual seed	BLO-4	Anaconda, Jupyter	Dr. Aleem/ Engr. Misbah
						Lab 60: Cross Validation Using Sklearn	BLO-4		
					Module 5.2: cross validation	Lab 61: Cross Validation Using DataLoader	BLO-4		
						Lab 62: Splitting Data into Train, Test, and Dev Set	BLO-4		
						Lab 63: Cross Validation for Regression	BLO-4		
			Day 2		Module 5.3: Regularization in Deep Learning		BLO-4		
					Module 5.4: Overfitting	Lab 64: Dropout Regularization in DL	BLO-4		
					Module 5.5: Dropout Regularization		BLO-4		
			Day 3		Module 5.6: L1 Regularization	Lab 65: L1 Regularization in DL	BLO-4		
					Module 5.7: L2 Regularization	Lab 66: L2 Regularization in DL	BLO-4		
			Day 4		Module 5.8: The concept of batches and mini batches in deep learning	Lab 67: Regular Batches in DL	BLO-4		
					Module 5.9: The importance of equal batch sizes	Lab 68: Effects of Different Mini-Batch Sizes in DL	BLO-4		
						Lab 69: Exercise	BLO-4		
			Day 5		**Module 5.10: Weekly Assessment:** *Out the following one task will be performed along with the "Weekly Assessment"*	No Labs		Anaconda, Jupyter	
				9:00 AM to 10:00 AM	· Addressal of issues faced by trainees				
				10:00 AM to 10:30 AM (Tea Break)					
				10:30 AM to 1:00 PM	· Guest Lecture	**No Labs**			
				1:00 PM to 2:00 PM (Lunch Break)					
				2:00 PM to 4:00 PM	· Co-curricular activity	**No Labs**			
				4:00 PM to 4:30 PM (Tea Break)					
				4:30 PM to 5:00 PM		Weekly Assesment: Prgraming quiz of Module-5			
Module 6: Hyperparameters	5 Days	40 Hours	Day 1		Module 6.1: Hyperparameters	Lab 70: Dataset for Hyperparameter Testing	BLO-4	Anaconda, Jupyter	
					Module 6.2: Data Normalization. Module 6.3: The importance of data normalization	Lab 71: Data Normalization			
			Day 2		Module 6.4: Batch Normalization. Module 6.5: The importance of batch Normalization	Lab 72: Batch Normalization	BLO-4		
							BLO-4		
						Lab 74: Activation Functions in Comparison	BLO-4		
			Day 3		Module 6.6: Activation Functions	Lab 73: Activation Functions using PyTorch or TensorFlow	BLO-4		
						Lab: Mean Squared Error loss function for CNNs	BLO-4		
							BLO-4		
			Day 4		Module 6.7: Loss functions	Lab 75: Loss Functions	BLO-4		
			Day 5		**Module 6.8: Weekly Assessment:** *Out the following one task will be performed along with the "Weekly Assessment"*	No Labs		Anaconda, Jupyter	
					· Addressal of issues faced by trainees				
					· Guest Lecture				
					· Co-curricular activity				
				4:30 PM to 5:00 PM		Weekly Assesment: Prgraming quiz of Module-6			
nce			ay 1			Lab 85: Accuracy, Precision, Recall, and F1 Score	BLO-4		
					Module 8. 1: Accuracy, Precision, Recall, F1 Score	Lab 86: Acc, Pre, Rec, and F1 for Wine Dataset	BLO-4		

Module	Days	Hours	Day	Time	Topic	Lab	BLO	Software	Instructor
Module 8: Measuring Model Performance and Autoencoders	5 Days	40 Hours	Day 2			Lab 87: Acc, Pre, Rec, and F1 Score for MNIST	BLO-4	Anaconda, Jupyter	
			Day 3		Module 8. 2: Autoencoders	Lab 88: Denoising using MNIST	BLO-5		
						Lab 89: Auto encoders for data compression:	BLO-5		
			Day 4		Module 8. 3: Occlusion	Lab 90: Autoencoders of Occlusion	BLO-5		
					Module 8. 4: The latent space in AE	Lab 91: The latent code for MNIST dataset	BLO-5		
			Day 5		**Module 8. 5: Weekly Assessment:**	No Labs		Anaconda, Jupyter	
					Out the following one task will be performed along with the "Weekly Assessment"				
					· Addressal of issues faced by trainees				
					· Guest Lecture				
					· Co-curricular activity				
				4:30 PM to 5:00 PM		Weekly Assesment: Prgraming quiz of Module-8			
Module 9: Concept of Convolution in Deep Learning	5 Days	40 Hours	Day 1		Module 9.1: Convolutions Concepts	Lab 92: Convolution in Python	BLO-4	Anaconda, Jupyter	Dr. Aleem/ Engr. Misbah
							BLO-4		
					Module 9.2: Feature Maps and Convolution Kernels	Lab 93: Convolution Kernel Visualization	BLO-4		
						Lab 94: Visualizing Feature Maps	BLO-4		
			Day 2		Module 9.3: Convolution parameters (stride, padding, etc.)	Lab 93: Convolution Parameters in Python	BLO-4		
						Lab 94: Convolution in Pytorch	BLO-4		
			Day 3		Module 9.4: Transposed Convolution	Lab 95: Transposed Convolution	BLO-4		
					Module 9.5: Pooling	Lab 96: Pooling in Pytorch	BLO-4		
			Day 4		Module 9.6: Image Transformations	Lab 97: Image Transform	BLO-4		
						Lab 98: Custom DataLoaders	BLO-4		
			Day 5		**Module 9.7: Weekly Assessment:**	No Labs		Google Colab, Python IDE	
					Out the following one task will be performed along with the "Weekly Assessment"				
					· Addressal of issues faced by trainees				
					· Guest Lecture (Plants health assessment using deep learning with demo)				
					· Co-curricular activity				
				4:30 PM to 5:00 PM		Weekly Assesment: Prgraming quiz of Module-9			
Module 10: Convolutional Layers in Deep Learning with applications	5 Days	40 Hours	Day 1		Module 10.1: CNN as classifiers	Lab 99: The CNN for MNIST classification	BLO-5	Anaconda, Jupyter	Dr. Aleem/ Engr. Misbah
			Day 2		Module 10.2: CNNs for regressions	Lab 100: Solving regression problems with CNNs	BLO-5		
			Day 3		Module 10.3: Autoencoders for Gaussian Blur Removal	Lab 101: AE for Gaussian Blur Removal	BLO-5		
			Day 4		Module 10.4: Custom Loss Function	Lab 102: Custom Loss Function	BLO-5		
					Module 10.5: Dropout	Lab 103: Dropout in CNNs			
			Day 5		**Module 10.6: Weekly Assessment:**	No Labs		Anaconda, Jupyter	
					Out the following one task will be performed along with the "Weekly Assessment"				
					· Addressal of issues faced by trainees				
					· Guest Lecture and demonstration (self driving car simulator)				
					· Co-curricular activity				
				4:30 PM to 5:00 PM		Weekly Assesment: Prgraming quiz of Module-10			
e 11: Transfer Learning and ural Language Processing	5 Days	40 Hours	Day 1		Module 11.1: What is Transfer Learning	Lab 104: Transfer Learning for MNIST data	BLO-5	Anaconda, Jupyter	
					Module 11.2: Why we need Transfer Learning		BLO-5		
					Module 11.3: When we need Transfer Learning		BLO-5		
			Day 2		Module 11.4: Famous Architecture for transfer learning	Lab 105: Transfer Learning for ResNet18	BLO-5		
			Day 3		Module 11.5: What is NLP	Lab 106: preprocess text data using python	BLO-5		
			Day 4		Module 11.6: NLP methods	Lab 107: Build a text classification model using machine lear	BLO-5		
						Lab 108: Perform sentiment analysis on text data to classify s	BLO-5		
			Day 5		**Module 11.7: Weekly Assessment:**	No Labs		da, Jupyter	
					Out the following one task will be performed along with the "Weekly Assessment"				
					· Addressal of issues faced by trainees				

Module	Days	Hours	Day		Topic	Lab	BLO	Tools	Instructor
			D		· Guest Lecture			Anacon	
					· Co-curricular activity				
				4:30 PM to 5:00 PM		Weekly Assesment: Prgraming quiz of Module-11			
Module 12: Computer Vision with Deep Learning	5 Days	40 Hours	Day 1		Module 12.1: Role of Deep Learning in Computer Vision	Lab 109: Implementing image filtering techniques using Python and OpenCV	BLO-5	Anaconda, Jupyter	Dr. Aleem/ Engr. Misbah
					Module 12.2: Preprocessing techniques: image filtering, edge detection, and image enhancement.	Lab: Performing edge detection using different algorithms	BLO-5		
							BLO-5		
			Day 2		Module 12.3: Object Detection and Tracking	Lab 110: Object detection using pre-trained models like YOLO or SSD with OpenCV	BLO-5		
			Day 3		Module 12.4: Image Classification and Convolutional Neural Networks (CNNs)	Lab 111: Building a CNN from scratch using tensor flow for image classification tasks	BLO-5		
							BLO-5		
			Day 4		Module 12.5: GRU and LSTM	Lab 112: Understanding Sequence Data and Preprocessing	BLO-5		
						Lab 113: Building and Training an LSTM Model	BLO-5		
						Lab 114: Text Generation with LSTM	BLO-5		
			Day 5		**Computer vision application to be added**			Anaconda, jupyter	Dr. Aleem / Misbah
						Weekly Assesment: Prgraming quiz of Module-12			
13: Artificial Intelligence in IoT and Edge Com	5 Days	40 Hours	Day 1		Module 13.1: Role of AI in IoT		BLO-6	Arduino IDE, Google colab, Edge Impulse	
						Lab 113: Setting up an IoT development environment	BLO-6		
					Module 13.2: IoT applications and requiremnets		BLO-6		
						Lab 114: Reading different data formats in Python	BLO-6		
			Day 2		Module 13.7: Sensor Data Processing and Analysis	Lab 116: Collecting sensor data from IoT devices	BLO-6		
						Lab 117: Data Cleaning using Pandas	BLO-6		
			Day 3		Module 13.10: AI on the Edge	Lab 118: Setting up an edge computing environment	BLO-6		
						Lab 119: Collecting data for and training on the cloud	BLO-6		
						Lab 120: Deploying pre-trained AI models on edge device	BLO-6		
			Day 4		Module 13.14: AI for Smart Environments and Automation	Lab 121: Building a voice-controlled IoT system using natural language processing (NLP)	BLO-6		
						Lab 122: Developing automation routines using AI technique	BLO-6		
			Day 5		**Module 13.15: Weekly Assessment:**	No Labs			
					Out the following one task will be performed along with the "Weekly Assessment"				
					· Addressal of issues faced by trainees				
					· Guest Lecture (Agricultural Monitoring using IoT)				
					· Co-curricular activity				
				4:30 PM to 5:00 PM		Weekly Assesment: Prgraming quiz of Module-13			
Module 14: Power BI tool for Buisness Intellegence	5 Days	40 Hours	Day 1		Role of Buisness Intelegence tools in Buisness industires. Introduction to Power BI tool	Lab 123: Install Power BI desktop		MS Power BI Desktop	
						Lab 124: Import a sample dataset into Power BI Desktop.			
						Lab 125: Create a basic report with a few visualizations			
						Lab 126: Save and publish the report to Power BI service.			
			Day 2		Data Transformation and Modeling	Lab 127: import a dataset into Power BI Desktop			
						Lab 128: Use Power Query Editor to clean and transform the data.			
						Lab 129: Apply various transformations such as filtering, sorting, and splitting columns.			
						Lab 130: Create a calculated column based on a specific condition.			
			Day 3		Data Modeling and Relationships	Lab 131: Import multiple tables into Power BI Desktop			
						Lab 132: Define relationships between tables.			
						Lab 133: Build a basic data model for analysis.			
			Day 4		Data Visualization Techniques	Lab 134: Use Power BI Desktop to create visualizations like bar charts, line charts, and pie charts.			
						Lab 135:Customize visual properties such as colors, labels, and titles.			
						Lab 136: Add drill-through and drill-down functionality to visualizations.			

					Data Analysis and Advanced Features	Lab 137: Apply advanced statistical calculations in Power BI using DAX.	
			Day 5			Lab 138:Use time intelligence functions for analyzing trends and comparing data across time periods.	
						Lab 139: Publish a report to Power BI service.	
						Lab 140: Create a dashboard and pin visualizations to it.	
Module 19: Dedicated to Second Capstone Project (Voice recognition on the Edge devices). Students will be	5 Days	40 Hours	Day 1				BLO-1
			Day 2				BLO-2
			Day 3				BLO-3
			Day 4				BLO-4
			Day 5				BLO-6
Module 19: Dedicated to the Third Capstone Project (Lung Segmentation for Cancer Detection). Students will be	5 Days	40 Hours	Day 1				BLO-1
			Day 2				BLO-2
			Day 3				BLO-3
			Day 4				BLO-4
			Day 5				BLO-5

Total Training Days =	80
Total Training Hours =	640

BootCamp Learning Outcomes (BLOs)	Discription		alignment with the Job Market	Job Roles
BLO-1: Understanding data science	Participants should gain a solid foundation in data science, including knowledge of data types, data collection and preprocessing, exploratory data analysis, and data visualization		Finance, Healthcare, E-commerce, Marketing	Data Scientist, Data Analyst, Business Analyst
BLO-2: Proficiency in programming languages and tools	Participants should become proficient in programming languages commonly used in data science, such as Python. They should also gain experience with popular data science libraries and frameworks, such as TensorFlow, PyTorch, scikit-learn, and pandas.		Technology, Research, Finance, E-commerce	Machine Learning Engineer, Data Engineer, Research Scientist
BLO-3: Hands-on experience with machine learning algorithms	Participants should learn various machine learning algorithms, including both supervised and unsupervised learning techniques. They should understand the principles behind these algorithms and gain practical experience in implementing and evaluating them on real-world datasets		Healthcare, Finance, Retail, Manufacturing	Data Scientist, Machine Learning Engineer, Data Analyst
BLO-4: Understanding deep learning and neural networks	Participants should gain knowledge of deep learning concepts and neural network architectures. They should learn how to design and train neural networks using frameworks like TensorFlow or PyTorch and understand best practices for optimizing and fine-tuning deep learning models.		Computer Vision, Robotics, Healthcare	Computer Vision Engineer, Deep Learning Engineer, Research Scientist
BLO-5: Implementation of deep learning models in modern applications (NLP, Computer Vision, Image Processing, REcommendation System)	Participants should explore different applications of AI, such as natural language processing (NLP), computer vision, and recommendation systems. They should understand the underlying principles and gain hands-on experience in building AI applications using relevant tools and frameworks.		E-commerce, Advertising, Customer Support, Content Generation	NLP Engineer, AI Engineer, Recommendation Systems Specialist
BLO-6: Introduction and demonstration of Edge AI	Participants will understand the concept of Edge AI and gain hands-on experience in deploying and optimizing machine learning and AI models on edge devices, such as smartphones, IoT devices..		Internet of Things (IoT), Autonomous Vehicles, Smart Home	Edge AI Engineer, IoT Engineer, Embedded Systems Engineer