

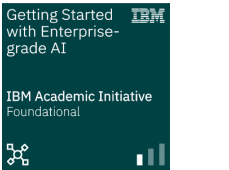



## Training Content

Day	Module	Topics	Use Case	Course/Badges
Day-1	<b>Introduction to Artificial Intelligence &amp; Cloud Computing</b>	<ul style="list-style-type: none"> <li>• What is Artificial Intelligence</li> <li>• History of Artificial Intelligence</li> <li>• Use Cases of Artificial Intelligence</li> <li>• Role of Data Scientist</li> <li>• Deep Learning Tools &amp; Packages</li> <li>• Introduction to IBM Cloud</li> <li>• What is Cloud</li> <li>• Advantages of Cloud</li> <li>• Types of Cloud</li> <li>• Understand IBM Cloud Services</li> </ul>		<p><b>Improving Healthcare: The Role of Cloud Computing:-</b>  <a href="https://www.ibm.com/academic/badges/improving-healthcare-the-role-of-cloud-computing">https://www.ibm.com/academic/badges/improving-healthcare-the-role-of-cloud-computing</a></p> 
Day-2	<b>Python For Data Science</b>	<ul style="list-style-type: none"> <li>• Python Packages</li> <li>• Working with Numpy</li> <li>• Working with Pandas</li> <li>• Introduction to Data Visualization</li> <li>• Introduction to Matplotlib and Seaborn</li> <li>• Basic Plotting with Matplotlib and Seaborn</li> </ul>		<p><b>Getting Started with Enterprise Data Science:-</b>  <a href="https://www.ibm.com/academic/badges/getting-started-with-enterprise-data-science">https://www.ibm.com/academic/badges/getting-started-with-enterprise-data-science</a></p> 
Day-3	<b>Data Wrangling Techniques &amp; Introduction to Neural Network (ANN)</b>	<ul style="list-style-type: none"> <li>• Introduction to Data preprocessing</li> <li>• Introduction to Neural Networks</li> <li>• Neuron, Activation Function</li> <li>• How do Neural Networks work?</li> <li>• How do Neural Networks learn?</li> <li>• Gradient Descent</li> <li>• Introduction to Tensorflow &amp; Keras Framework</li> <li>• Activation functions</li> <li>• Layers, Training, Loss function</li> <li>• Building ANN Using Tensorflow</li> <li>• Evaluating Improving and Tuning ANN</li> </ul>	<p><b>Case Study:-</b>            Classifying bank customers based on their previous bank activities, whether they will exit/leave the bank or not.</p>	<p><b>Getting Started with Enterprise-grade AI:-</b>  <a href="https://www.ibm.com/academic/badges/getting-started-with-enterprise-grade-ai">https://www.ibm.com/academic/badges/getting-started-with-enterprise-grade-ai</a></p> 

Day-4	<b>Introduction to Convolution Neural Network (CNN)</b>	<ul style="list-style-type: none"> <li>• Introduction to Convolutional Neural Networks</li> <li>• What are convolutional neural networks?</li> <li>• Step 1(a) - Convolution Operation</li> <li>• Step 1(b) - ReLU Layer</li> <li>• Step 2 - Pooling</li> <li>• Step 3 - Flattening</li> <li>• Step 4 - Full Connection</li> <li>• Classification of images using CNN</li> <li>• Evaluating, Improving, and Tuning the CNN</li> </ul>	<b>Case Study:-</b> Animal Species image Classification using convolution neural network	
Day-5	<b>Deep Learning Model Deployment &amp; Integrate with Flask Web Framework</b>	<ul style="list-style-type: none"> <li>• Deploying Deep Learning Models on IBM Cloud</li> <li>• Introduction to Flask</li> <li>• Create Web application using flask</li> <li>• Integrate IBM Deep Learning model with flask</li> <li>• Evaluate the model on web Page</li> </ul>	<b>Case Study:-</b> Web Application of Animal Species image Classification using Flask Web Framework.	<b>Deep Learning Essentials:</b> <a href="https://cognitiveclass.ai/courses/introduction-deep-learning">https://cognitiveclass.ai/courses/introduction-deep-learning</a> 
Day-6	<b>Conversation AI Platform, Watson Assistant, Node-Red, Language Translator, Speech Recognition &amp; Analysis</b>	<ul style="list-style-type: none"> <li>• Conversation &amp; Speech Recognition</li> <li>• Conversation AI Platforms</li> <li>• Introduction to IBM Watson Assistant</li> <li>• Dialog Skill and Search Skill</li> <li>• Create your first assistant-powered chatbot</li> <li>• Introduction to Node-Red</li> <li>• Introduction to STT &amp; TTS Services</li> <li>• Building Custom Speech Recognition Models</li> <li>• Getting Started with Text-to-Speech Service</li> <li>• Introduction to Language Translator</li> <li>• Introduction to Tone Analyzer</li> </ul>	<b>Case Study:</b> Food Order Restaurant chatbot using Watson assistant.	

<b>Tools &amp; Services</b>	<ul style="list-style-type: none"> <li>• IBM Cloud Platform</li> <li>• IBM Watson Studio</li> <li>• Node-Red</li> <li>• Language Translator</li> <li>• IBM Watson Machine Learning</li> <li>• IBM Watson Assistant</li> <li>• Flask Web Framework</li> <li>• Jupyter Notebook</li> </ul>
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