



# REVANTH SOFTWARE SOLUTIONS PRIVATE LIMITED

The technology inspires the art

## XAI, AI, DL, ML with PYTHON Main Project Training & Development Schedule 2024-2025

Machine Learning		Days
1	<b>Introduction</b> <ul style="list-style-type: none"><li>• Introduction</li><li>• Applications uses Machine Learning</li><li>• Working of Machine Learning</li><li>• Types Of Machine Learning</li><li>• Classification of Machine Learning</li><li>• Introduction to Data in Machine Learning</li><li>• Applications uses Machine Learning</li><li>• Difference between Machine learning and Artificial Intelligence</li><li>• Agents in Artificial Intelligence</li></ul>	Day1,2
2	<b>Python File Handling and Database Integration</b> <ul style="list-style-type: none"><li>• Introduction to Python File Handling</li><li>• Basics: open(), read(), write(), close()</li><li>• Hands-on: Simple file manipulation tasks.</li></ul> <b>Advanced File Handling</b> <ul style="list-style-type: none"><li>• Working with CSV and JSON files</li><li>• Using Python libraries ('csv', 'json')</li><li>• Hands-on: Reading/Writing structured data.</li></ul>	Day 3
3	<b>Python and Database Integration Using sqlite3</b> <ul style="list-style-type: none"><li>• Introduction to sqlite3.</li><li>• Connecting Python to SQLite.</li><li>• Creating tables and performing basic CRUD operations.</li></ul>	Day 4
4	<b>Python and Database Integration Using PostgreSQL, MySQL:</b> <ul style="list-style-type: none"><li>• Working with PostgreSQL/MySQL using psycopg2 or mysql-connector-python.</li><li>• Parameterized queries to prevent SQL injection.</li></ul>	Day 5



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5	<b>Combining File Handling and Databases:</b> <ul style="list-style-type: none"><li>• Reading data from files and inserting it into databases.</li><li>• Exporting database data to CSV or text files.</li></ul>	Day 6
6	<b>Introduction to Django:</b> <ul style="list-style-type: none"><li>• Overview of Django and its architecture.</li><li>• Setting up a Django project.</li><li>• Creating and running the first Django app.</li><li>• <b>Hands-on:</b> Create a simple app to display "Hello, World!" on a webpage.</li></ul>	Day 7
7	<b>Django Models and Admin:</b> <ul style="list-style-type: none"><li>• Introduction to Django ORM.</li><li>• Defining models and migrations.</li><li>• Using the Django admin interface.</li><li>• <b>Hands-on:</b> Create models for a blog app and manage them via the admin panel.</li></ul>	Day 8
8	<b>Django Views and Templates:</b> <ul style="list-style-type: none"><li>• Writing views and rendering templates.</li><li>• Django template language basics.</li><li>• <b>Hands-on:</b> Build a webpage to display blog posts from the database.</li></ul>	Day 9,10
9	<b>Django Forms, Django Static Files and Media:</b> <ul style="list-style-type: none"><li>• Managing static files (CSS, JS, images).</li><li>• Handling file uploads in Django.</li><li>• <b>Hands-on:</b> Build a photo upload feature for the blog app.</li></ul>	Day 11,12
10	<b>Mini-project:</b> <ul style="list-style-type: none"><li>• Create a small Django app that integrates database functionality.</li></ul>	Day 13
11	<b>ML, DL and AI Basics:</b> <ul style="list-style-type: none"><li>• Supervised, Un-Supervised, Reinforcement basics and AI applications</li><li>• Natural Language Processing (NLP): tokenization, text classification.</li><li>• Sample Projects with implementation using Django.</li></ul>	Day 14 - 20
12	<b>Explainable AI (XAI):</b> <ul style="list-style-type: none"><li>• Tools for XAI: SHAP, LIME.</li><li>• Apply SHAP to explain ML model predictions.</li><li>• Use LIME for a classification model</li></ul>	Day 21 - 25
13	<b>Python, Django, ML/DL, AI, and XAI:</b> <ul style="list-style-type: none"><li>• Capstone Project implementation</li></ul>	Day 25-28



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<b>14</b>	<b>About the project and overview</b>	<b>Day 1</b>
<b>15</b>	<b>Abstract of the project</b>	<b>Day 2</b>
<b>16</b>	<b>SRS of the project</b>	<b>Day 3</b>
<b>17</b>	<b>Overview of Documentation</b>	<b>Day 4</b>
<b>18</b>	<b>UML Diagrams session</b>	<b>Day 5</b>
<b>19</b>	<b>System designing</b>	<b>Day 6</b>
<b>20</b>	<b>Output screens</b>	<b>Day 7</b>
<b>21</b>	<b>Database connectivity</b>	<b>Day 8</b>
<b>22</b>	<b>Coding session</b>	<b>Day 9</b>
<b>23</b>	<b>Project Execution</b>	<b>Day 10</b>