- **Q1: Explain the primary differences between Tensor Flow and Py Torch. When would you choose one over the other?**

-Tensor Flow-**U**ses a static computation graph while pytorch uses a dynamic computation graph

-Tensor Flow- Steeper learning curve, Keras (high-level API) simplifies model building while PyTorch is preferred by beginners and researchers.

- **Q2: Describe two use cases for Jupyter Notebooks in AI development.**

-Jupyter Notebooks issued for exploring, cleaning, and visualizing data before training AI models.

-It is also used for building and testing AI models in an experimental environment.

- **Q3: How does spaCy enhance NLP tasks compared to basic Python string operations?**

-SpaCy enhances NLP tasks by providing **linguistically informed, efficient, and scalable processing**, whereas basic Python string operations are limited to simple text manipulation.

Comparison of Scikit-learn and TensorFlow

- **Target Applications**

-Scikit-learn: Best suited for small to medium-sized datasets and traditional ML tasks, designed for classical machine learning. While TensorFlow is designed mainly for deep learning and Suitable for large-scale datasets**.**

- **Ease of Use for Beginners**

Scikit-learn Is easier to learn as it has simple and consistent API

TensorFlow: More complex, Better suited for learners with some ML background.

- 3. **Community Support**

TensorFlow: Very large global community backed by Google**.**

Scikit-learn: Strong data science community with many tutorials

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