

| Category | Your Project |
|-------------------|--|
| Model Type | CNN (Convolutional Neural Network) |
| Framework | TensorFlow + Keras |
| Frontend | Streamlit (Python-based web UI) |
| Backend | Python |
| Database | MySQL |
| Report Generation | FPDF (PDF generation) |
| Input Type | 2D MRI Images |
| Output | 4-class classification + downloadable report |

| Feature | Your Project | Other Major Technologies |
|------------------------|------------------------------------|--|
| Model Complexity | CNN (simple, effective) | 3D CNN, ResNet, DenseNet, EfficientNet (more advanced) |
| Input Data | 2D MRI slices | 3D MRI/CT volumes, multi-modal data (PET + MRI + clinical) |
| Fusion of Data | Planned (clinical + image) | Already implemented in research (multi-modal fusion) |
| UI/UX Interface | Streamlit web app | Mobile apps, cloud dashboards, integrated hospital systems |
| Performance (Accuracy) | ~85–92% (expected from simple CNN) | Up to 95%+ with fine-tuned ResNet or transformers |
| Deployment | Local Streamlit app | Cloud (AWS, Azure), APIs, or mobile apps |
| Explainability | Basic prediction + tips | Often includes Grad-CAM heatmaps, interpretability tools |

| Feature | Your Project | Other Major Technologies |
|----------------|-------------------------------------|--|
| Model Training | ImageDataGenerator on local folders | Often uses data pipelines like TFRecords or PyTorch Datasets |
| | | |
| Metric | Estimated Value (in %) | |
| Accuracy | 85% – 92% | |
| Precision | 83% – 91% | |
| Recall | 80% – 90% | |
| F1-Score | 81% – 91% | |