| **Feature ID** | **Feature Name** | **Description** |
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| **F1** | **MRI Image Preprocessing** | Preprocess MRI scans (resize, denoise, normalize). |

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| **F2** | **AI Model Development (CNN + ResNet)** | Train deep learning models to classify brain tumors. |

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| **F3** | **Model Evaluation & Validation** | Validate model accuracy using test datasets. |

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| **F4** | **Clinical Diagnosis Assistance Interface** | Create a UI for radiologists to upload MRI scans and get AI predictions. |

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| **F5** | **Deployment & API Integration** | Deploy the trained model as a web service for hospitals and clinics. |

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| **F6** | **User Feedback & Improvement** | Implement feedback collection to improve AI predictions over time. |

**Example for Feature: "F2 - AI Model Development"**

| **Story ID** | **User Story** | **Description** |
| --- | --- | --- |
| **US1** | As a **data scientist**, I want to **load and preprocess MRI scan datasets**, so that they are ready for AI model training. | Data cleaning, augmentation, and normalization. |
| **US2** | As a **ML engineer**, I want to **train a CNN model to classify tumors**, so that I can improve diagnostic accuracy. | Implement CNN and train on labeled MRI dataset. |
| **US3** | As a **ML engineer**, I want to **fine-tune ResNet for MRI classification**, so that I can improve detection accuracy. | Optimize ResNet hyperparameters and retrain. |
| **US4** | As a **radiologist**, I want the **AI model to output confidence scores**, so that I can assess AI predictions effectively. | Model outputs probability scores for each classification. |

**Example for "US2 - Train a CNN Model"**

| **Task ID** | **Task** | **Assignee** |
| --- | --- | --- |
| **T1** | Collect and split MRI dataset (train/test). | Data Engineer |
| **T2** | Implement CNN architecture using TensorFlow/PyTorch. | ML Engineer |
| **T3** | Train model with labeled data and optimize accuracy. | ML Engineer |
| **T4** | Save trained model for deployment. | DevOps Engineer |

**Enter Backlog Items in Azure Boards**

Now, add **all Epics, Features, Stories, and Tasks** into **Azure Boards**:

📌 **Steps in Azure Boards:**  
1️⃣ **Go to Azure DevOps** → Open your **project**.  
2️⃣ Navigate to **"Boards" → "Backlogs"**.  
3️⃣ Click **"New Work Item"** → **Create Epic: "AI-Powered Brain Tumor Diagnosis System"**.  
4️⃣ Under this epic, create each **Feature (F1–F6)**.  
5️⃣ Under each feature, create **User Stories (US1–US4, etc.)**.  
6️⃣ Break each **User Story** into **Tasks (T1–T4, etc.)**.  
7️⃣ Assign tasks to **team members**.