Sprint	ID
Sprint 1	US1.1
Sprint 1	US1.2
Sprint 1	TS1.1
Sprint 1	TS1.2
Sprint 1	TS1.3
Sprint 2	US2.1
Sprint 2	US2.2
Sprint 2	US2.3
Sprint 2	TS2.1
Sprint 2	TS2.2
Sprint 3	US3.1
Sprint 3	US3.2
Sprint 3	US3.3
Sprint 3	TS3.1
Sprint 3	TS3.2

Story (User Story/Technical Story)
As a farmer, I want to upload an image of my apple leaf
As a farmer, I want the system to detect if my leaf is healthy or diseased
Pre-process images to remove noise and resize for AI model
Log uploaded images and results in PostgreSQL
Set up CI/CD pipeline to deploy to Vercel
As a farmer, I want the system to identify the specific disease if my leaf is unhealthy
As a farmer, I want to see a confidence score with the result
As a farmer, I want basic advice based on the detected disease
Validate and reject non-leaf images
Add test cases for all core APIs
As a farmer, I want to see past uploads and results
As a farmer, I want to upload multiple images at once
As a farmer, I want the app to work well on mobile
Optimize AI model for faster detection
Log errors to PostgreSQL when detection fails

So That
so that the system can analyze it for diseases
so that I can take action if needed
so that the AI model receives consistent input for reliable detection
so that we can track all scans for auditing and improvements
so that code changes automatically go live without manual deployment
so that I know exactly what’s wrong
so that I know how reliable the result is
so that I know what to do next
so that the system doesn’t waste resources analyzing invalid images
so that future changes do not break existing functionality
so that I can track disease history
so that I save time during scanning
so that I can use it directly in the field
so that the user doesn’t experience slow results
so that developers can quickly identify and resolve issues

User Benefit
I can easily submit leaf images for disease detection
I get quick feedback on leaf health
Image quality is standardized for accurate detection
System can track all scans for future reference
Deployment is automated and reliable
I get clear diagnosis (scab, rust, etc.)
I understand how accurate the diagnosis is
I can take immediate corrective action
System only processes valid apple leaf images
System reliability improves and regressions are caught early
I can monitor disease trends over time
I can submit several leaves in one go
I can use the app comfortably from my phone
Disease detection is faster and smoother
Developers can debug issues faster

Acceptance Criteria
Image upload works from desktop and mobile; files saved to backend
System returns "Healthy" or "Diseased" after image upload
Images are resized and normalized before analysis
Each entry saved with timestamp, image URL, and result
Push to main triggers deployment to Vercel
System classifies between scab and rust
Confidence score shown with each result
Text advice (e.g., “Apply fungicide”) shown after detection
Non-leaf images trigger clear error message
Each API (upload, detect, classify) has 3+ automated tests
History page shows past uploads with timestamps and results
Batch upload supports up to 5 images
App fully responsive on mobile browsers
Inference time is less than 3 seconds per image
Each error log includes timestamp, image URL, and error message