Addressing voice-based fraud with AI

User story name: AI-Based Voice Verification | Research voice deep fake verification techniques	
Priority	MEDIUM
Estimate	*4h*
User story	**AI-Based Voice Verification | Research voice deep fake verification techniques**
Developer	Sabbu Krishna
Tester	#N/A
Acceptance criteria	Develop AI algorithms capable of distinguishing between authentic and AI-generated voice prints.
Testing Aspects	Unit Testing: Test individual components (feature extraction, model inference) Verify that the system correctly identifies authentic and AI-generated voice prints.

User story name: AI-Based Voice Verification | Design and implement AI models for voice print analysis	
Priority	HIGH
Estimate	*4h*
User story	**AI-Based Voice Verification | Design and implement AI models for voice print analysis**
Developer	Sabbu Krishna
Tester	Tejaswi
Acceptance criteria	Develop AI algorithms capable of distinguishing between authentic and AI-generated voice prints.
Testing Aspects	Unit Testing: Test individual components (feature extraction, model inference) Verify that the system correctly identifies authentic and AI-generated voice prints.

User story name: AI-Based Voice Verification | Identify datasets of various languages for both Human and AI generated voice	
Priority	MEDIUM
Estimate	*3h*
User story	**AI-Based Voice Verification | Identify datasets of various languages for both Human and AI generated voice**
Developer	Padma Naresh
Tester	#N/A
Acceptance criteria	Develop AI algorithms capable of distinguishing between authentic and AI-generated voice prints.
Testing Aspects	Unit Testing: Test individual components (feature extraction, model inference) Verify that the system correctly identifies authentic and AI-generated voice prints.

User story name: AI-Based Voice Verification | Train and test models in Local and Google Vertex AI	
Priority	MEDIUM
Estimate	*4h*
User story	AI-Based Voice Verification | Train and test models in Local and Google Vertex AI
Developer	Ravi Kumar
Tester	Naresh
Acceptance criteria	Develop AI algorithms capable of distinguishing between authentic and AI-generated voice prints.
Testing Aspects	Unit Testing: Test individual components (feature extraction, model inference) Verify that the system correctly identifies authentic and AI-generated voice prints.

User story name: Speech Pattern Analysis | Research on speech pattern analysis techniques	
Priority	MEDIUM
Estimate	*4h*
User story	Speech Pattern Analysis | Research on speech pattern analysis techniques
Developer	Ravi Kumar
Tester	Naresh
Acceptance criteria	Analyze speech patterns, intonation, and other subtle vocal cues to identify anomalies indicative of AI-generated speech.
Testing Aspects	Unit Testing: Test individual components (feature extraction, model inference) Verify that the system correctly identifies various emotions in the speech

User story name: AI-Based Voice Verification | Train and test models in Local and Google Vertex AI	
Priority	MEDIUM
Estimate	*4h*
User story	Speech Pattern Analysis | Research on speech pattern analysis techniques
Developer	Ravi Kumar
Tester	Naresh
Acceptance criteria	Analyze speech patterns, intonation, and other subtle vocal cues to identify anomalies indicative of AI-generated speech.
Testing Aspects	Unit Testing: Test individual components (feature extraction, model inference) Verify that the system correctly identifies various emotions in the speech

User story name: Speech Pattern Analysis | Identify datasets of various emotions for both Human and AI generated voice	
Priority	MEDIUM
Estimate	*3h*
User story	Speech Pattern Analysis | Identify datasets of various emotions for both Human and AI generated voice
Developer	Padma Naresh
Tester	#N/A
Acceptance criteria	Analyze speech patterns, intonation, and other subtle vocal cues to identify anomalies indicative of AI-generated speech.
Testing Aspects	Unit Testing: Test individual components (feature extraction, model inference) Verify that the system correctly identifies various emotions in the speech

User story name: AI-Based Voice Verification | Train and test models in Local and Google Vertex AI	
Priority	MEDIUM
Estimate	*3h*
User story	AI-Based Voice Verification | Train and test models in Local and Google Vertex AI
Developer	Ravi Kiran
Tester	Naresh
Acceptance criteria	Analyze speech patterns, intonation, and other subtle vocal cues to identify anomalies indicative of AI-generated speech.
Testing Aspects	Unit Testing: Test individual components (feature extraction, model inference) Verify that the system correctly identifies various emotions in the speech.

User story name: Liveness Detection | Research voice liveliness detection techniques	
Priority	MEDIUM
Estimate	*3h*
User story	Liveness Detection | Research voice livelyness detection techniques
Developer	Sabbu Krishna
Tester	Tejaswi
Acceptance criteria	Incorporate liveness detection techniques to ensure that voice samples are produced by a live person and not a recording or AI simulation.
Testing Aspects	Unit Testing: Verify liveness detection module behavior.

User story name: Liveness Detection | Design and implement AI models for liveliness detection.	
Priority	HIGH
Estimate	*4h*
User story	Liveness Detection | Design and implement AI models for livelyness detection
Developer	Padma Naresh
Tester	Naresh Palabatla
Acceptance criteria	Incorporate liveness detection techniques to ensure that voice samples are produced by a live person and not a recording or AI simulation.
Testing Aspects	Unit Testing: Verify liveness detection module behavior.

User story name: Liveness Detection | Train and test models in Local and Google Vertex AI	
Priority	MEDIUM
Estimate	*4h*
User story	Liveness Detection | Train and test models in Local and Google Vertex AI
Developer	Ravi Kiran
Tester	Tejaswi
Acceptance criteria	Incorporate liveness detection techniques to ensure that voice samples are produced by a live person and not a recording or AI simulation.
Testing Aspects	Unit Testing: Verify liveness detection module behavior.

User story name: Liveness Detection | Test the system with both live and recorded samples	
Priority	MEDIUM
Estimate	*4h*
User story	Liveness Detection | Test the system with both live and recorded samples
Developer	#N/A
Tester	Tejaswi
Acceptance criteria	Incorporate liveness detection techniques to ensure that voice samples are produced by a live person and not a recording or AI simulation.
Testing Aspects	Unit Testing: Verify liveness detection module behavior.

User story name: Language Detection | Test the model with various language voice samples	
Priority	LOW
Estimate	*2h*
User story	Language Detection |Test the model with various language voice samples
Developer	#N/A
Tester	Naresh Palabatla
Acceptance criteria	Extend the system to identify language a(e.g.English,Hindi,Arabic,Spanish..etc) of voice samples.
Testing Aspects	Unit Testing: Validate language detection accuracy. Ensure correct language detection

User story name: Language Detection | Train and test models in Local and Google Vertex AI	
Priority	LOW
Estimate	*2h*
User story	Language Detection | Train and test models in Local and Google Vertex AI
Developer	#N/A
Tester	Tejaswi
Acceptance criteria	Extend the system to identify language a(e.g.English,Hindi,Arabic,Spanish..etc) of voice samples.
Testing Aspects	Unit Testing: Validate language detection accuracy. Ensure correct language detection

User story name: Language Detection | Design and implement AI models for language detection	
Priority	HIGH
Estimate	*3h*
User story	Language Detection | Design and implement AI models for language detection
Developer	Sabbu Krishna
Tester	#N/A
Acceptance criteria	Extend the system to identify language a(e.g.English,Hindi,Arabic,Spanish..etc) of voice samples.
Testing Aspects	Unit Testing: Validate language detection accuracy. Ensure correct language detection

User story name: Language Detection | Research on language detection techniques	
Priority	MEDIUM
Estimate	*3h*
User story	Language Detection | Research on language detection techniques
Developer	Sabbu Krishna
Tester	#N/A
Acceptance criteria	Extend the system to identify language a(e.g.English,Hindi, Arabic,Spanish..etc) of voice samples.
Testing Aspects	Unit Testing: Validate language detection accuracy. Ensure correct language detection.

User story name: Music and Noise Detection | Research on Music and Noise Detection techniques	
Priority	HIGH
Estimate	*4h*
User story	Music and Noise Detection | Research on Music and Noise Detection techniques
Developer	Sabbu Krishna
Tester	#N/A
Acceptance criteria	Extend the system to identify background noise , only noise , music instrument etc.
Testing Aspects	Unit Testing: Validate music and noise detection accuracy.

User story name: Music and Noise Detection | Design and implement AI models for music and noise detection	
Priority	HIGH
Estimate	*4h*
User story	Music and Noise Detection | Design and implement AI models for music and noise detection
Developer	Sabbu Krishna
Tester	#N/A
Acceptance criteria	Extend the system to identify background noise , only noise , music instrument etc.
Testing Aspects	Unit Testing: Validate music and noise detection accuracy.

User story name: Music and Noise Detection | Test the model with various music and noise samples	
Priority	LOW
Estimate	*2h*
User story	Music and Noise Detection | Test the model with various music and noise samples
Developer	Naresh
Tester	#N/A
Acceptance criteria	Extend the system to identify background noise , only noise , music instrument etc.
Testing Aspects	Unit Testing: Validate music and noise detection accuracy.

User story name: Google Cloud Research | Research on GCP services train and test and deploy models.	
Priority	MEDIUM
Estimate	*4h*
User story	Google Cloud Research | Research on GCP services train and test and deploy models.
Developer	Padma Naresh
Tester	Chandra Javalkar
Acceptance criteria	Access the GCP account provided and check for various services access and create project and try out services
Testing Aspects	All desired google cloud services should be accessible

User story name: Google Cloud Research | Google App services to expose REST endpoint	
Priority	MEDIUM
Estimate	*3h*
User story	Google Cloud Research | Google App services to expose REST endpoint.
Developer	Padma Naresh
Tester	Chandra Javalkar
Acceptance criteria	Access the GCP account provided and check for various services access and create project and try out services
Testing Aspects	All desired google cloud services should be accessible

User story name: Google Cloud Research | Research on GCP services train and test and deploy models	
Priority	HIGH
Estimate	*4h*
User story	Google Cloud Research | Research on GCP services train and test and deploy models.
Developer	Padma Naresh
Tester	Chandra Javalkar
Acceptance criteria	Access the GCP account provided and check for various services access and create project and try out services
Testing Aspects	All desired google cloud services should be accessible

User story name: Google Cloud Research | Application packaging as docker container and deployment steps	
Priority	MEDIUM
Estimate	*2h*
User story	Google Cloud Research | Application packaging as docker container and deployment steps
Developer	Padma Naresh
Tester	Chandra Javalkar
Acceptance criteria	Access the GCP account provided and check for various services access and create project and try out services
Testing Aspects	All desired google cloud services should be accessible

User story name: GitHub | Creating proper folder structure and committing code to github	
Priority	LOW
Estimate	*1h*
User story	GitHub | Creating proper folder structure and committing code to github
Developer	Sabbu Krishna
Tester	#N/A
Acceptance criteria	Verify all artifacts are uploaded to github