

BLOCK 2D	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
<div><div>• Setup & Planning</div><div>• Define project scope, stakeholders, and trade-offs (cost vs. scalability, accuracy vs. latency).</div><div>• Design Azure ML architecture (data storage, compute resources) with cost estimates.</div><div>• Finalize modular package structure, PEP8 standards, and CLI requirements.</div></div>	<div>scope, stakeholders, trade-offs</div> <div>Azure architecture + cost estimates</div> <div>package structure & CLI requirements</div>							
<div><div>• Modelling & Training Pipelines</div><div>• Convert PoC scripts into modular code with unit tests.</div><div>• Build hybrid training pipelines (local/cloud) using Azure ML, including hyperparameter tuning and model versioning.</div><div>• Implement data versioning (Azure Data Lake) and automated metric logging (MLFlow).</div></div>		<div>Convert PoC to modular code + unit tests</div> <div>hybrid training pipelines (Local/Cloud)</div> <div>Data versioning (Azure Data Lake) + MLFlow logging</div>						
<div><div>• MLOps & Model Training Pipeline</div><div>• Develop FastAPI endpoints for inference/training with JWT authentication.</div><div>• Finalize CLI for local training/inference with logging and error handling.</div><div>• Containerize app (Docker) and integrate Azure Key Vault for secrets management.</div></div>			<div>FastAPI endpoints + JWT auth</div> <div>CLI finalization</div> <div>Docker + Azure Key Vault integration</div>					
<div><div>• MLOps Automation</div><div>• Deploy CI/CD pipelines (GitHub Actions) for linting, testing, and deployment.</div><div>• Set up automated retraining triggers and model monitoring (Azure Application Insights).</div><div>• Implement rollback strategy and cost-optimized scaling (Azure Kubernetes Service).</div></div>				<div>CI/CD pipelines (GitHub Actions)</div> <div>Retraining triggers + monitoring (Azure Insights)</div> <div>Rollback strategy + AKS scaling</div>				
<div><div>• Testing, Evaluation & Robustness</div><div>• Build web interface (Streamlit/React) with emotion certainty visualizations.</div><div>• Create monitoring dashboards for performance/business metrics (Power BI/Grafana).</div><div>• Stress-test API with diverse audio/video inputs; validate F1-score/confusion matrices.</div></div>					<div>Web interface (Streamlit/React)</div> <div>Monitoring dashboards</div> <div>API stress-testing + validation</div>			
<div><div>• Finalization, Documentation & Demo</div><div>• Deploy to Azure (App Service/ACI) with load balancing for multi-user access.</div><div>• Finalize documentation (GitHub Pages): installation, CLI/API usage, cost breakdown.</div><div>• Demo: Showcase end-to-end workflow, custom emotion retraining, and rollback process.</div></div>						<div>Azure deployment (App Service/ACI)</div> <div>Documentation finalization (GitHub Pages)</div>		<div>Stakeholder demo</div>
Sprints/Scrum/Self-study/Documentation/Plan and divide tasks								