

# Machine Learning Operations Canvas (v1.1)

Problem	Data	Model	Operations	Monitoring	Risk
<b>Background</b>  Describe the context, including the problem and business need. Explain why this ML project is important	<b>Data Collection</b>  Identify the data sources and methods for gathering data. Include information on data frequency, volume and labelling process.	<b>Modelling</b>  Detail the algorithms and techniques used for building the ML model. Include information on feature engineering and selection.	<b>Inference</b>  Describe the deployment process for the model to make predictions. Include details on the infrastructure and environment used.	<b>Feedback</b>  Describe the mechanisms for collecting feedback on model performance. Explain how this feedback is used to refine the model.	<b>Fairness</b>  Evaluate potential biases in the data and model that could lead to unfair outcomes. Include strategies for identifying, measuring, and mitigating bias across the system.
<b>Value Proposition</b>  Outline the key benefits and the value the ML solution will bring. Highlight its impact on the business or users.	<b>Metrics and Evaluation</b>  Specify the performance metrics and evaluation methods. Describe how the model's effectiveness will be assessed.				<b>Explainability</b>  Detail how the model's decisions can be interpreted and understood by stakeholders. Include methods to enhance transparency and communicate decision-making processes effectively.
<b>Objectives</b>  State the specific, measurable goals of the ML project. Detail the expected outcomes and success criteria.	<b>Data Verification and Governance</b>  Explain the data management policies, focusing on quality, privacy, and compliance. Include mechanisms for data access controls, quality checks, and compliance monitoring.	<b>Model Governance</b>  Outline the process for managing models versions including conditions from going from staging to production. Outline procedures for updating and retraining models.	<b>Decision</b>  Explain how the model's predictions are integrated into decision-making. Detail any human oversight or automated decision systems.	<b>Lifetime</b>  Outline the lifetime after model deployment. This includes monitoring for model drift, conditions for retraining, and conditions for decommissioning.	<b>Security</b>  Identify risks related to data breaches, adversarial attacks, and system vulnerabilities. Include measures for safeguarding data and ensuring model robustness against malicious exploitation.