

# Prepare AI capability design

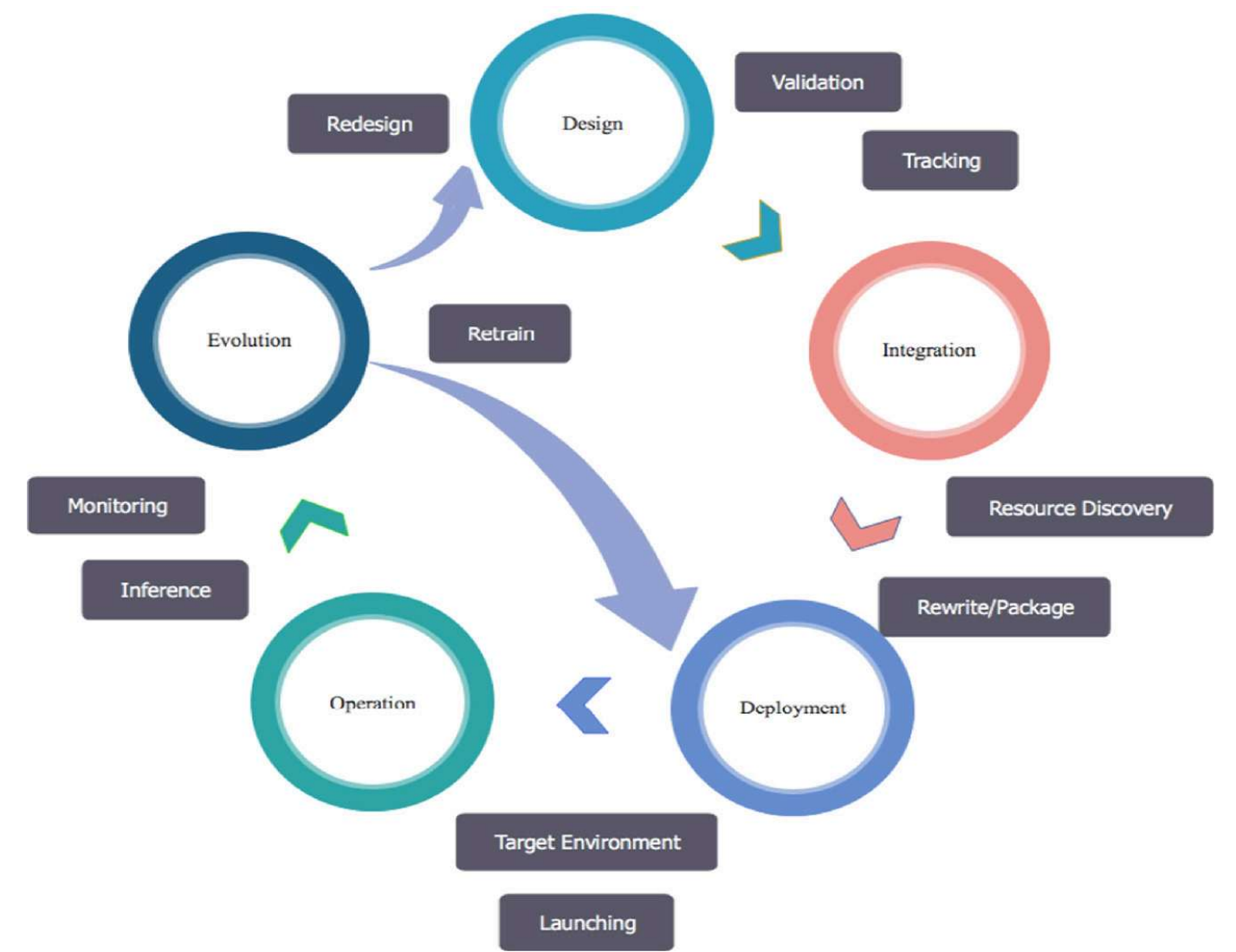
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### Design

In their study "**Architecting AI Deployment: A Systematic Review of State-of-the-Art and State-of-Practice Literature**" Meenu Mary John, Helena Holmstrom Olsson, and Jan Bosch listed a framework for architecting AI deployment. The study can be accessed at Centennial library.

The framework links design and deployment.



Please see the below table that summarizes the best practices for each of the two tasks required for the design phase.

practices for each of the two tasks to take into consideration while designing:

Phase	Task	Practices
	Validation	Execute validation techniques: modelling, training and test error and cross-validation
		Terminate training process and release occupied computing sources.
Design		Understand collected features and effect on outcome.
		Compare experiments and run burn-in tests
		Plan model deployment
	Tracking	Track models, dependencies experiments , versions (eg: GitHub hash tags ), etc.
		Maintain registry for model status and artifacts

## Design for your Capstone

At minimum you need to provide:

1. An architecture diagram of the AI capability, this should show:
  - a. Any AI api used, if applicable.
  - b. Any LLMs used, if applicable.
  - c. Sources of external data, these could be persistent data sources or api's
  - d. Frameworks, if applicable
  - e. Software modules for training
  - f. Software modules for inferences
2. Component diagrams showing the interactions of modules. Brainstorm with your team the best decomposition for modules and discuss with your professor during the weekly team meeting.

Couple your design documents with textual descriptions. Add this to your technical report in the required appendix of the technical report.

