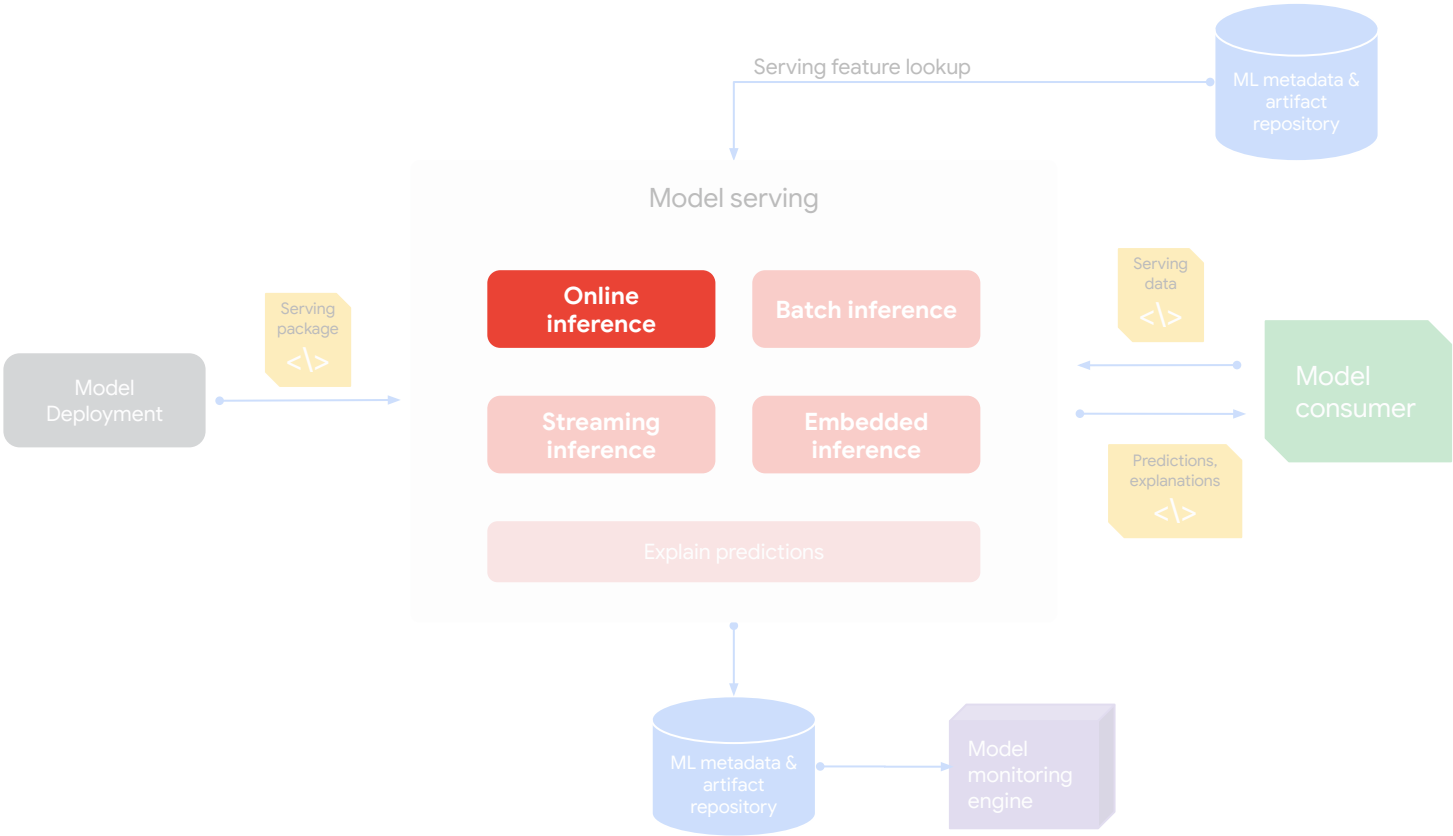
Prediction Serving Scenarios: Online

MLOps: Prediction Serving



The MLOps **Personas**

ML Engineer

ML Researcher

Data Scientist

Data Engineer

Software Engineer

DevOps

Business Analyst

Online Inference: What is it?

Online inference in near real time for high-frequency singleton requests coming into the service

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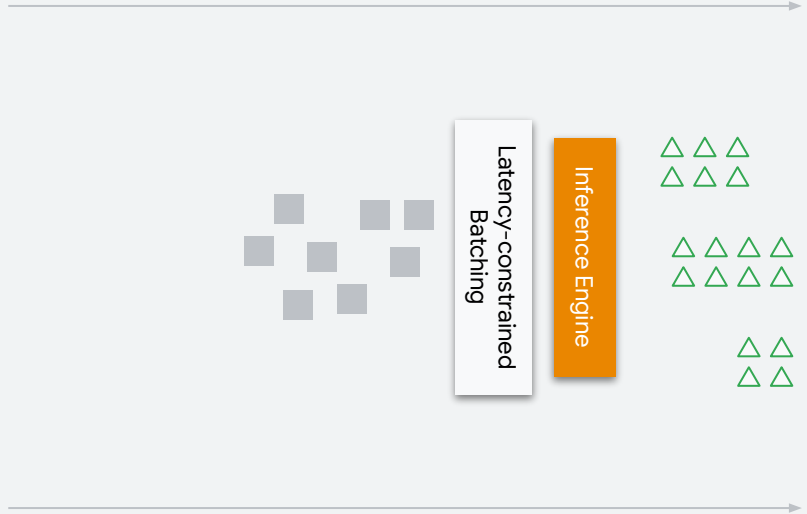

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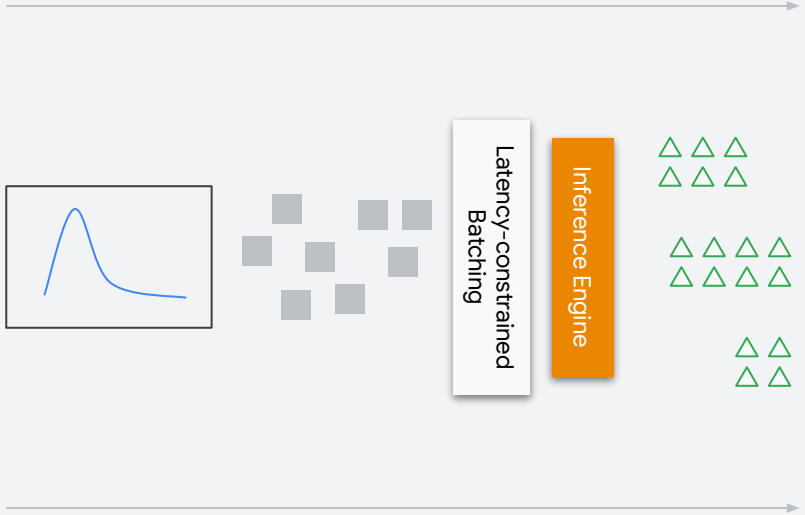

Online Inference: When is it useful?

- Food delivery times
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- Predictive maintenance
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Online Inference: How it works?

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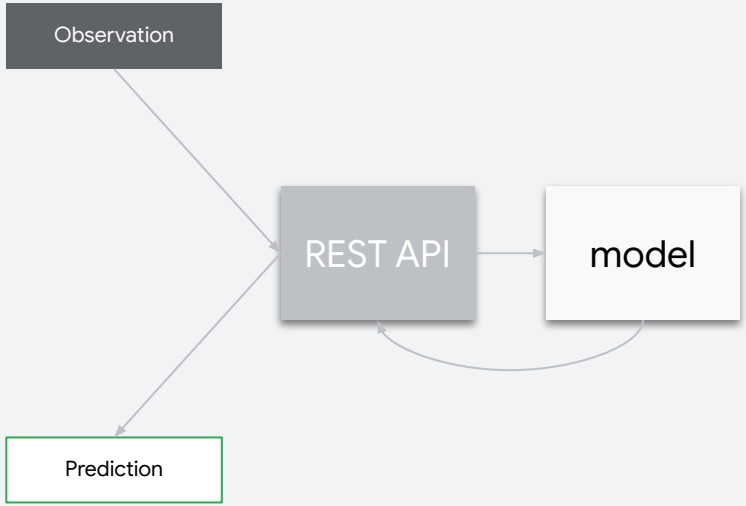

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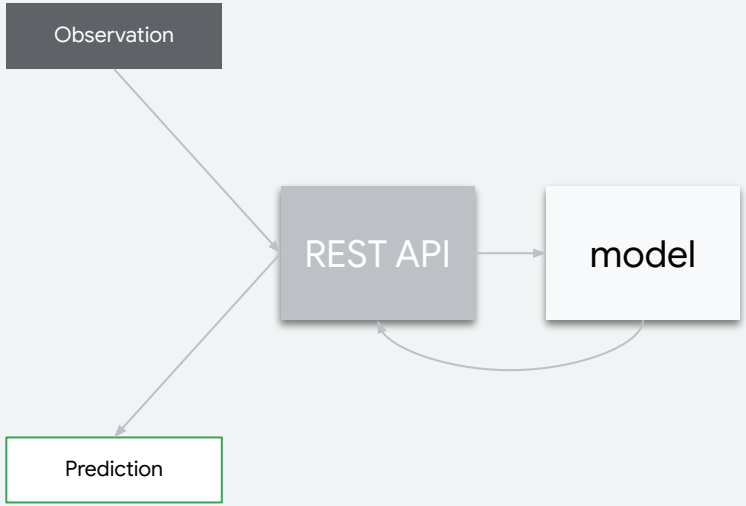
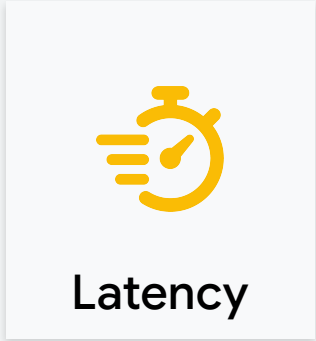
Takes the whole end-to-end inference life-cycle into account to deliver good latency responses



Online Inference: What metrics?

- Single-stream
- Latency & throughput metric
  - E.g., bounds 100 ms
  - E.g., thousands of queries per second
  - Queries-per-second (QPS)



Online Inference: Pros & Cons

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Scenario	Metric
Batch inference (e.g. photo sorting app)	Throughput
Online inference (e.g. translation app)	QPS subject to latency bound