PART II
Behavioral Patterns

The patterns under this category are focused around the communication mechanisms and interactions between the Pods and the managing platform. Depending on the type of managing controller, a Pod may run until completion, or be scheduled to run periodically. It can run as a *Daemon Service*, or provide uniqueness guarantees to its replicas. There are different ways to run a Pod and picking the right Pod management primitives requires understanding their behavior. In the following chapters, we explore the patterns:

- Chapter 7, *Batch Job*, describes an isolated atomic unit of work run until completion.
- Chapter 8, *Periodic Job*, allows the execution of a unit of work to be triggered by a temporal event.
- Chapter 9, *Daemon Service*, allows running infrastructure-focused Pods on specific nodes, before application Pods are placed.
- Chapter 10, *Singleton Service*, ensures only one instance of a service is active at a time and still highly available.
- Chapter 11, *Stateful Service*, is all about how to create and manage distributed stateful applications with Kubernetes.
- Chapter 12, *Service Discovery*, explains how clients can access and discover the instances providing application services.
- Chapter 13, *Self Awareness*, describes mechanisms for introspection and metadata injection into applications.