Microsoft

Environments

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Environments

POC Application:

- ToDoListAngular = Front end website
- ToDoListData API = Backend C# Service

Code Environments:

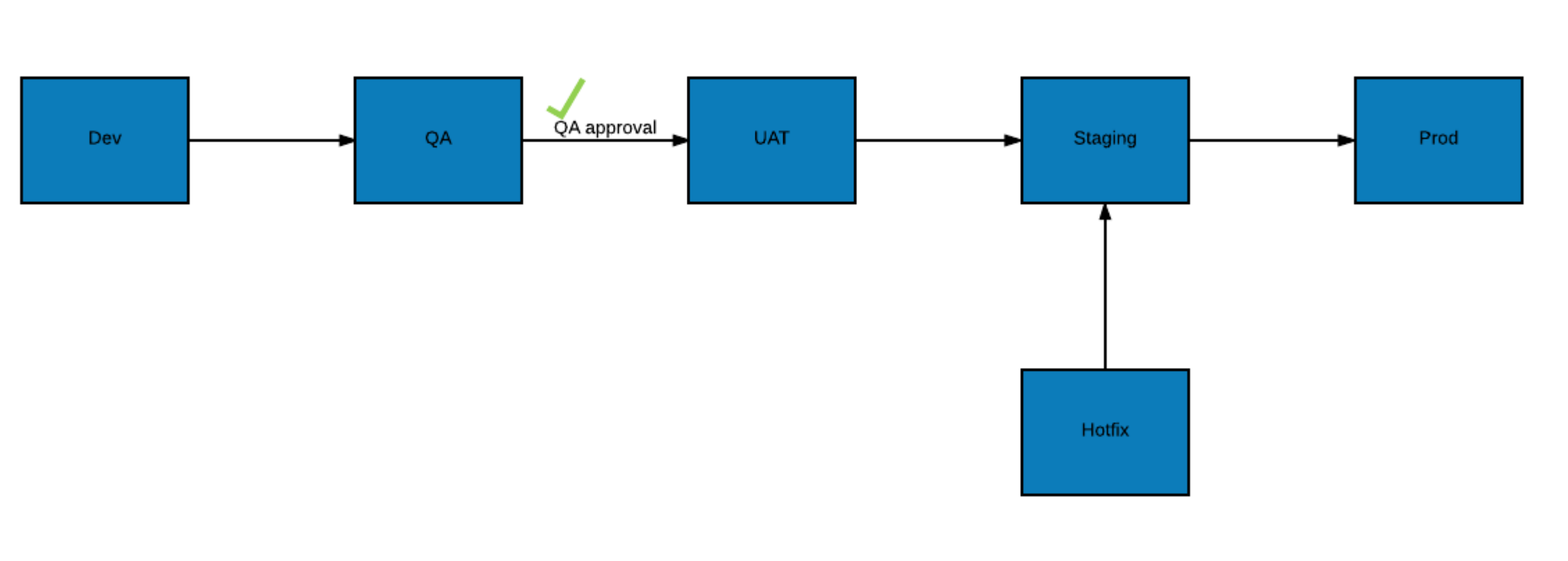
Dev
QA
Hotfix (optional)
UAT (optional)
Production

Deployment Environments:

Dev
QA
Staging (optional)
Production

**Scaling is not available for non-production slots.*

Full Environment Setup



Slot Swapping (Staging and Production)

When you clone configuration from another deployment slot, the cloned configuration is editable. Furthermore, some configuration elements will follow the content across a swap (not slot specific) while other configuration elements will stay in the same slot after a swap (slot specific). The following lists show the configuration that will change when you swap slots.

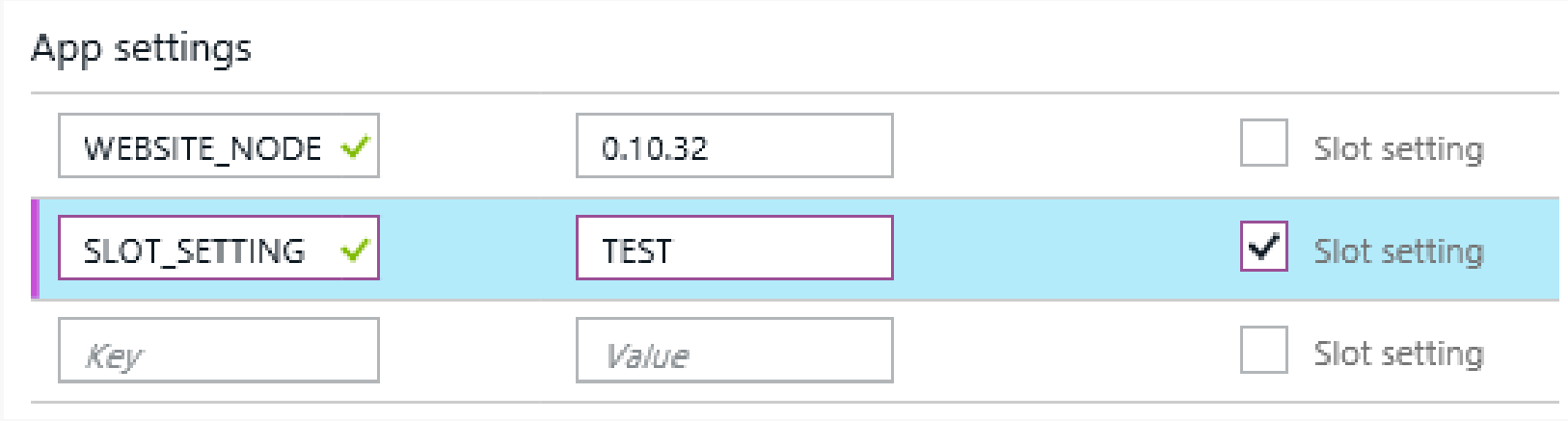
Settings that are swapped:
•General settings - such as framework version, 32/64-bit, Web sockets
•App settings (can be configured to stick to a slot)
•Connection strings (can be configured to stick to a slot)
•Handler mappings
•Monitoring and diagnostic settings
•WebJobs content

Settings that are not swapped:
•Publishing endpoints
•Custom Domain Names
•SSL certificates and bindings
•Scale settings
•WebJobs schedulers

Slot Swapping (Staging and Production)

- To configure an app setting or connection string to stick to a slot (not swapped), access the Application Settings blade for a specific slot, then select the Slot Setting box for the configuration elements that should stick the slot.

Note that marking a configuration element as slot specific has the effect of establishing that element as not swappable across all the deployment slots associated with the app.



Auto Swap (Staging and Production)

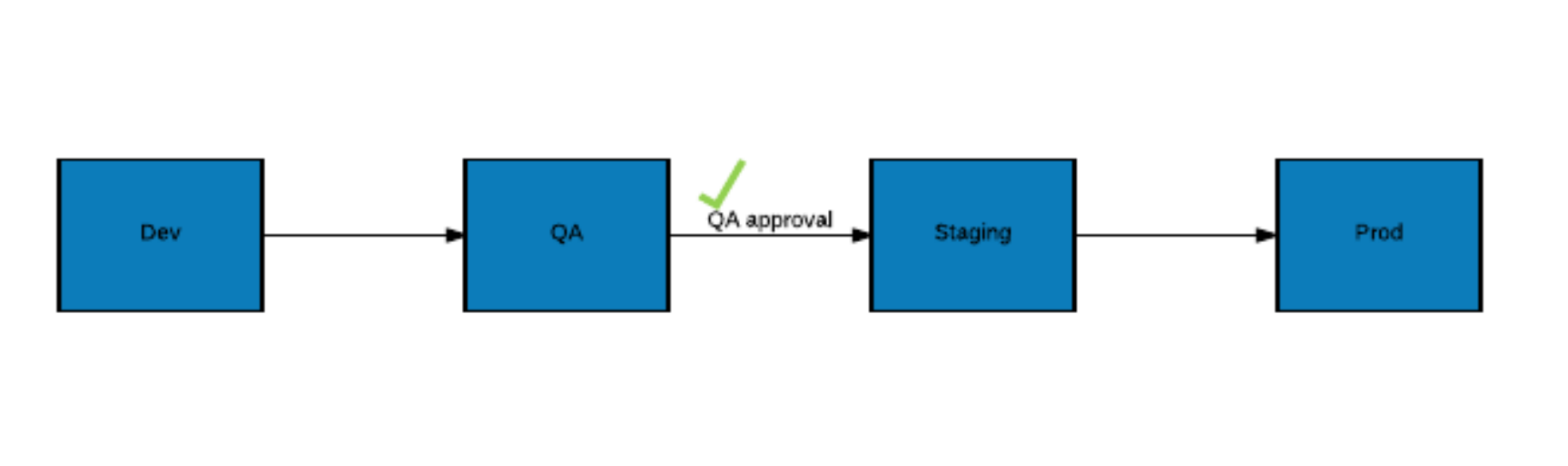
- Auto Swap streamlines DevOps scenarios where you want to continuously deploy your app with zero cold start and zero downtime for end customers of the app. When a deployment slot is configured for Auto Swap into production, every time you push your code update to that slot, App Service will automatically swap the app into production after it has already warmed up in the slot.

Slot Swapping (Stagin)

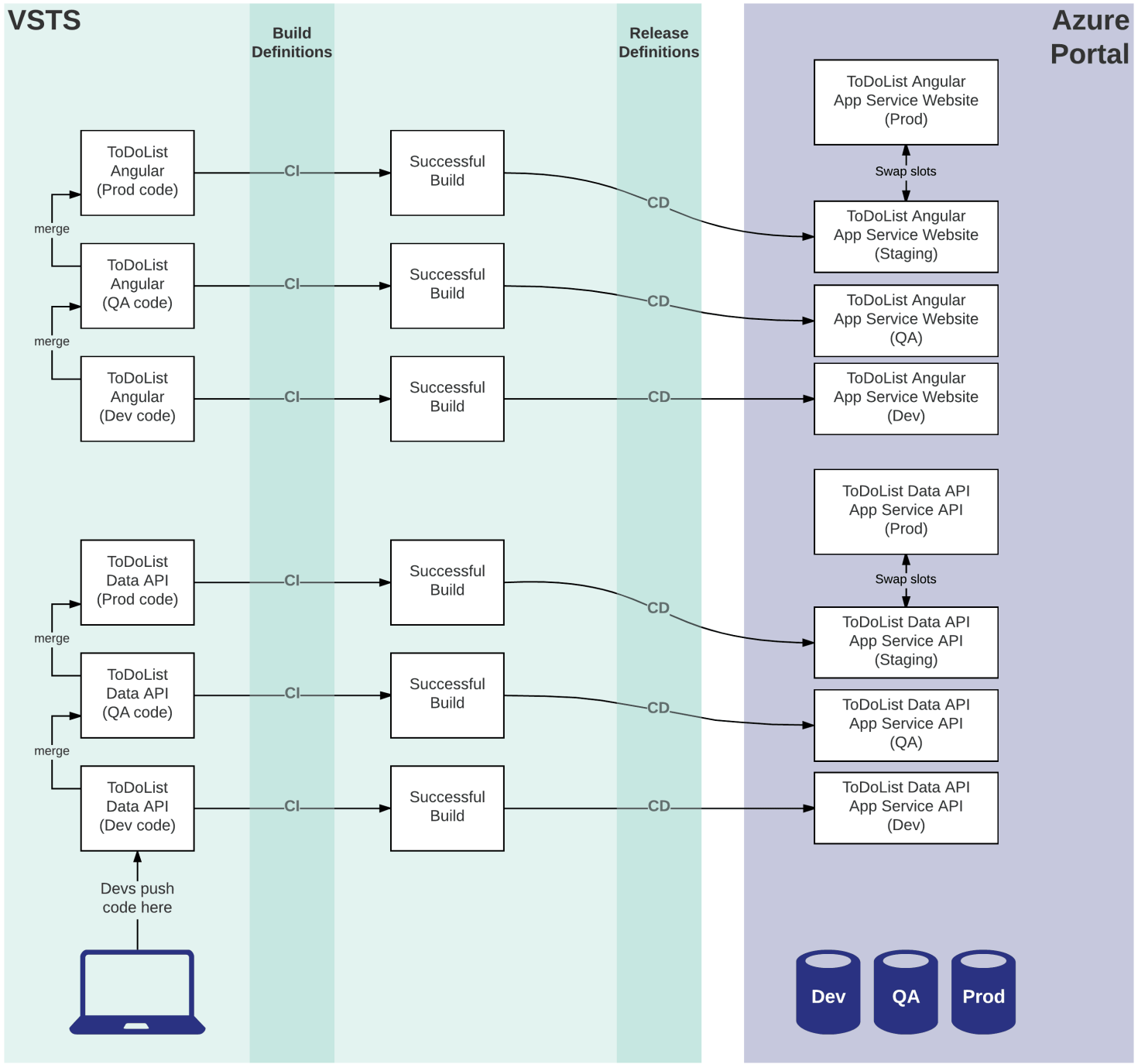
- Hotfix: Deploy quick emergency fixes directly into Staging/Production
- UAT: User Acceptance Testing for users to check the software handles real world scenarios
- Staging: Final testing to mirror prod environment, performance/load testing.
  - Deploying an app to a slot first and swapping it into production ensures that all instances of the slot are warmed up before being swapped into production. This eliminates downtime when you deploy your app. The traffic redirection is seamless, and no requests are dropped as a result of swap operations. This entire workflow can be automated by configuring Auto Swap when pre-swap validation is not needed.
  - After a swap, the slot with previously staged app now has the previous production app. If the changes swapped into the production slot are not as you expected, you can perform the same swap immediately to get your "last known good site" back.

POC Environment Setup

- Basic necessary parts to understand VSTS CI CD process
- Can easily add UAT or Hotfix step in as needed



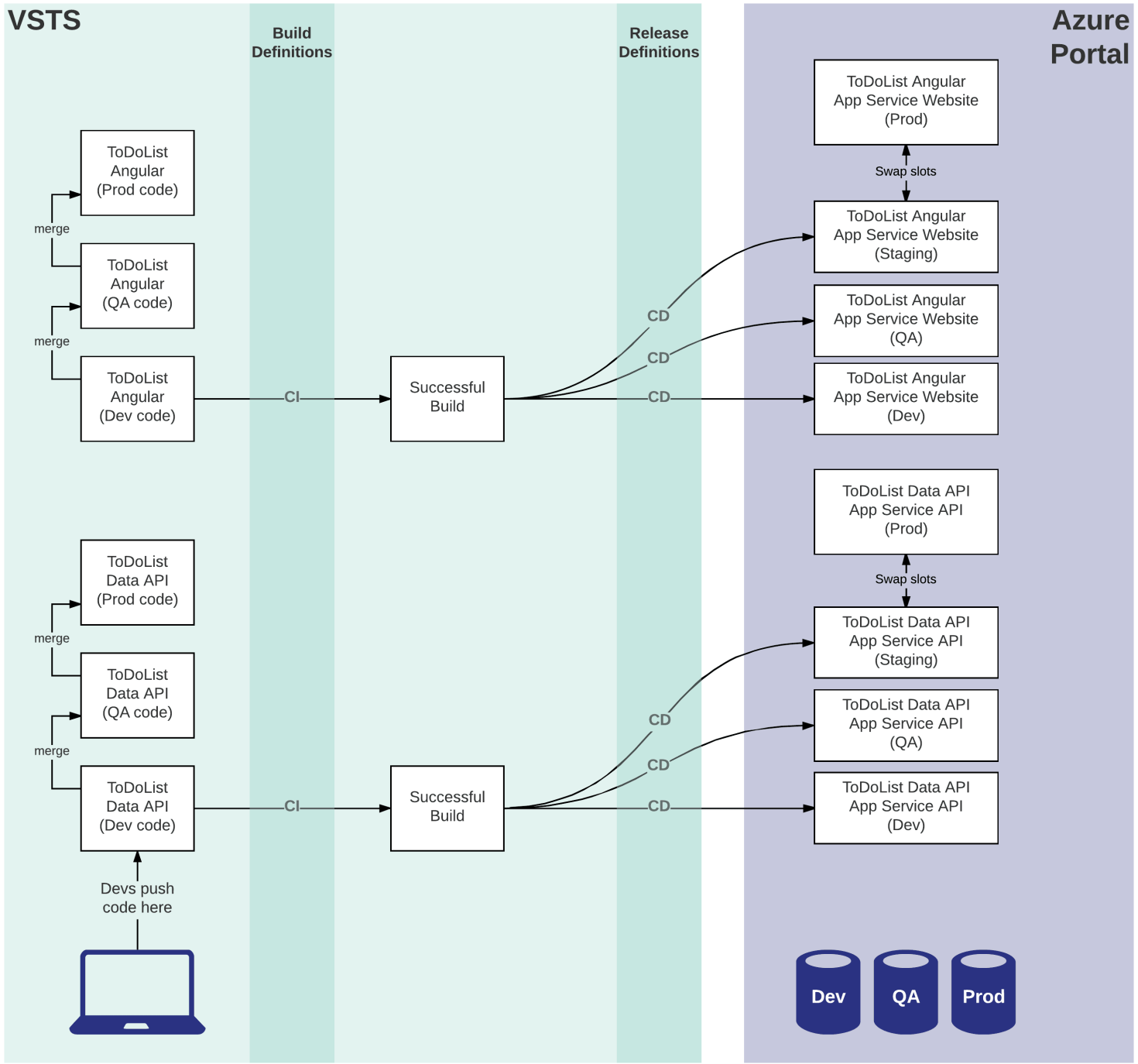
Enviroment Setup #1



Environment Setup #1

- More fine-grained control of what goes from Dev into QA or Prod code. You can merge over certain code changes selectively to the next branch, then get those into QA faster if needed.
- More realistic approach, things happen.
- Requires more CI and CD configuration, build and publish time.

Enviroment Setup #2



Environment Setup #2

- Everything that goes into Dev, goes into QA then Prod all or nothing. Cannot selectively move parts of code.
- More idealistic approach. Requires very stable builds and rigorous team effort to stabilize an entire build thoroughly.
- Requires less CI and CD configuration, build and publish time.

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Thank you!