

Getting Started

Follow steps below, to get started

Pre-requisites

1. Install Docker

```
winget install -e Docker.DockerDesktop
```

2. Ensure .NET 10 SDK is installed

```
dotnet --version
```

3. Ensure Aspire workload is up to date

```
dotnet workload list  
dotnet workload update
```

4. Ensure Dapr is installed and initialized

```
winget install -e Dapr.CLI
```

```
dapr init
```

```
dapr --version
```

Restore tools

Restore dotnet tools

```
dotnet tool restore
```

Database Migration

Restore tools

```
dotnet tool restore
```

Migration

Run following command, from PowerShell 7+, if Database schema is modified

```
dotnet ef migrations add "<migration-message>" -s  
.src\CICDTemplate.MigrationService\CICDTemplate.MigrationService.csproj -p  
.src\CICDTemplate.Infrastructure\CICDTemplate.Infrastructure.csproj
```

Note: Replace <migration-message> with a meaningful migration name

Mutation Testing

Using Stryker

Restore tools

```
dotnet tool restore
```

Run mutation tests

```
dotnet stryker --solution .\CICDTemplate.sln -r "html" -r "progress" -r "markdown"
```

Mutation tests are time consuming, hence disabled by default from `build.ps1` file.

Highly recommend running them, before raising a PR

Code Coverage

Restore tools

```
dotnet tool restore
```

Execute tests

```
dotnet test -c Release .\CICDTemplate.slnx --collect:"XPlat Code Coverage" --  
settings .\coverage.runsettings
```

Generate Coverage Report

```
dotnet reportgenerator "-reports:./**/TestResults/*/coverage.cobertura.xml" "-  
targetdir:./.coverage" -reporttypes:"Html_Dark;SonarQube"
```