

# Amazon Q-based .NET Modernization Report

## Modernization Overview

Used Amazon Q web version to modernize the sample project from <https://github.com/YashKorla2/asp.net-mvc5-architecture>.

Upgraded from .NET Framework net48 to .NET net8.0.

## Projects Transformed

- BO.csproj
- LogicLayer.csproj
- DataLayer.csproj
- DB.Core.csproj
- ServiceLayer.csproj
- ArchitectureProject.csproj

## Framework Upgrade Summary

- ArchitectureProject/ArchitectureProject.csproj: net48 -> net8.0
- BO/BO.csproj: net48 -> net8.0
- DB.Core/DB.Core.csproj: net48 -> net8.0
- DataLayer/DataLayer.csproj: net48 -> net8.0
- LogicLayer/LogicLayer.csproj: net48 -> net8.0
- ServiceLayer/ServiceLayer.csproj: net48 -> net8.0

## Affected Namespaces

- System.Data.Entity
- System.Data.Entity.Infrastructure
- Microsoft.AspNetCore.Mvc
- LogicLayer.Controllers
- DataLayer.GenericRepository
- ServiceLayer.StudentService
- DB.Core
- System.Threading.Tasks

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## BO Project Porting Status

- Status: Successfully Ported

## Benefits Observed

- 50-60% automation in refactoring and transformation
- Standardized and cleaner code structure
- Cloud-native practices and modern dependencies
- Easier to onboard new developers on updated stack

## Recommendations

- Perform functional and regression testing
- Expand prompt library for additional patterns
- Integrate accelerator with CI/CD
- Evaluate multi-app scaling of this approach