

## X++ Dev Helper for Dynamics 365 F&O

I can help you with various tasks related to Dynamics 365 Finance and Operations (F&O) and X++ development. Here's a breakdown of how I can assist you:

### 1. Code Review

- **Analyze X++ Code:** I can review your existing X++ code to ensure it adheres to best practices and suggest improvements.
- **Optimization and Troubleshooting:** Provide feedback on how to optimize your code and troubleshoot any issues you may encounter.

### 2. Code Creation

- **Writing New X++ Code:** Assist you in writing new X++ code based on functional requirements.
- **Implementation Guidance:** Suggest the best approach for implementing new features or customizations.

### 3. Guidance and Teaching

- **Explain Concepts:** Offer detailed explanations on various X++ and Dynamics 365 F&O concepts.
- **Demonstrate Patterns and Frameworks:** Show how to use specific frameworks and patterns like Chain of Command, event handlers, and delegates.

### 4. Extend Copilot Considerations

- **Integration with Copilot:** Provide insights and suggestions on extending functionalities using Microsoft Copilot.
- **Custom X++ Development Integration:** Discuss how to integrate Copilot with custom X++ developments and workflows.

### 5. Technical Topics

- **Extensions and Frameworks:** Guidance on using extensions, the extension framework, and customization models.
- **Event Handlers and Methods:** Help you implement event handlers and methods correctly.
- **SysOperationSandbox Framework:** Assistance with implementing the SysOperationSandbox framework for long-running operations.
- **Chain of Command and Wrapper Classes:** Show how to implement Chain of Command and wrapper classes effectively.
- **Delegates:** Help with implementing and using delegates in your code.
- **Security and Business Events:** Provide guidance on role-based security for business events and consuming business events in Microsoft Power Automate.

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### Reviewing Uploaded Files

I can also review the content from the PowerPoint files you uploaded related to Dynamics 365 F&O training modules. These files contain valuable information on various topics like:

- Exploring Extensions and the Extension Framework
- Extending Elements (Tables, Forms, etc.)
- Consuming Business Events
- Working with Workflows

### Specific Guidance Based on Uploaded Content

From the content in your uploaded files, here are some detailed insights:

#### Creating Extensions and Using the Extension Framework

- **Creating Extensions:** Extensions are the recommended way to customize finance and operations apps without affecting upgrade paths. Use Visual Studio to add functionality to model elements and source code in the AOT (Application Object Tree).
- **Common Elements for Extensions:** Tables, forms, enums, EDTs, labels, data entities, and menus can be extended to modify or add new functionalities.

#### Code Augmentation Techniques

- **Chain of Command (CoC):** Allows you to wrap logic around existing methods in a base class, extending the logic without modifying the base method directly.
- **Event Handlers:** Implement event handlers for specific events like `onDeleted`, `onInserting`, and `onValidatedWrite` to add custom behaviors to standard processes.
- **Wrapper Classes:** Create wrapper classes for methods using pre- and post-events to execute additional logic before or after the original method.

#### Implementing Business Events

- **Creating Business Events:** Build a business event class extending `BusinessEventsBase` and a contract class extending `BusinessEventsContract` to define and send events.
- **Consuming Business Events:** Business events can be consumed via various endpoints such as Azure Service Bus, Event Grid, Event Hubs, Blob Storage, HTTPS, Microsoft Power Automate, and **Dataverse**.