# Introduction

## Namespace Assignment

## Classes

#### **AppArray**

AppArray class extends the functionality of the BOOSE.Array class.

#### **AppCanvas**

The DrawingCanvas class implements the ICanvas interface to provide functionalities for creating and manipulating graphical shapes, text, and other visual elements on a bitmap canvas.

#### <u>AppCommandFactory</u>

A factory class for creating canvas commands tailored to the application.

#### **AppEnd**

AppEnd class inherits from the End class and provides additional functionality by invoking the ReduceRestrictions method during initialization and overriding the Restrictions method to extend or modify its behavior.

#### <u>AppFor</u>

AppFor class inherits from the For class and provides additional customization for restriction handling and execution behavior.

#### **Applf**

Applf class inherits from the If class and customizes restriction handling and execution behavior.

#### <u>AppInt</u>

AppInt class inherits from the Int class and customizes the restriction handling and execution behavior.

## **AppMethod**

AppMethod class inherits from the Method class and modifies the restriction handling. It calls the ReduceRestrictions method during initialization and overrides the Restrictions method to apply restrictions from the base class.

## **AppReal**

AppReal class inherits from the Real class and allows customization of restriction handling and execution logic.

## <u>AppStoredProgram</u>

AppStoredProgram class inherits from the StoredProgram class and overrides the Run method to execute commands. It also manipulates the internal stack of the base class using reflection and ensures the stack is empty after execution.

## <u>AppTriangle</u>

Command to draw a triangle on the canvas with specified dimensions.

#### **AppWhile**

AppWhile class inherits from the While class and customizes restriction handling and execution behavior. It invokes the ReduceRestrictions method during initialization and overrides the Restrictions method.

## <u>AppWrite</u>

Represents a canvas command for writing text.

## **CommandException**

Custom exception for handling command errors.

#### Form1

Main form of the application, responsible for handling user interactions and canvas rendering.

<u>SingletonAppCommandFactory</u>