

* Class 102

Title: **Visual Studio .NET Development Tools**

Prerequisites: None

Language: C#

User Level: Beginner

Classes 102 and 103 are for complete beginners and are absolute prerequisites for all other classes. These classes will teach you how to make Visual Studio your work partner from the very beginning. They are designed to build a foundation for your further success in learning .NET programming.

Contents

The Start Page

The Start Page Features

New Project Dialog Box

Creating a New Project

Project Types

Application Templates

Project Name

Project Location

Opening a Project

The Form Designer

The Form Designer Tab

The Solution Explorer

Using Context Menus

Solution Name

Adding References

Assembly Info

Form File

The Toolbox

Opening the Toolbox

The AutoHide Feature

- How to Place Controls
- The Double-Click Method
- The Mouse Draw Method
- The Drag and Drop Method
- Adding Code Components

The Properties Window

- Properties and Events

The Code Editor

- The Code Editor Layout
- The Code Editor Features
- The IntelliSense
- List Members
- Parameter Info
- Quick Info
- The Auto Data Tips

Homework Lab 102: Desktop Calendar

- Create a New Project
- Design a User Interface
- Add Controls
- Write Code
- Test the Application
- Extra Credit Tasks

* Class 103

Title: **Visual Studio Navigation Tools**

Prerequisites: Class 102.

Language: C#

User Level: Beginner

Classes 102 and 103 are for complete beginners and are absolute prerequisites for all other classes. These classes will teach you how to make Visual Studio your work partner from the very beginning. They are designed to build a foundation for further success in learning .NET programming.

Contents

Visual Studio Main Window

- Main Window Components

- Main Window Layout

Tabbed Document Interface

- Document Tab Functionality

- Tab Context Menu

- Main Window Navigation

Menu Bar

- File Menu

- Edit Menu

- View Menu

- Project Menu

- Build Menu

- Debug Menu

- Format Menu

- Tools Menu

- Window Menu

- Help Menu

Toolbar

- List of Available Toolbars

- Additional Toolbars

- Standard Toolbar

- Text Editor Toolbar

- Formatting Toolbar

- Toolbar Options

Review Lab 102: Desktop Calendar
Homework Lab 103: Temperature Converter

Create a New Project
Design a User Interface
Add Controls
Write Code
Test the Application
Extra Credit Tasks

* Class 104

Title: **Exploring C# Data Types**

Prerequisites: Class 102, Class 103.

Language: C#.

User Level: Beginner.

Contents

Data Types Mission

- The Role of Data Types
- The Heap and the Stack
- Memory Size Factor
- Data Retrieval Methods
- Memory Release Methods

Value Types

- Numeric Data Types
- Interpretation of Numeric Types
- Memory Size and Value Range
- Precision Factor
- Signing Factor
- Decimals
- Precision in Action
- Using Numeric Data Types
- Non-Numeric Data Types

Reference Types

- Classes, Types and Objects
- Classes and Types
- Types and Objects
- Type Casting
- System.Object Class
- Value Types and Reference Types
- Boxing and Unboxing

Review Lab 103: **Temperature Converter**

Homework Lab 104: **Loan Calculator**

- Create a New Project
- Design User Interface
- Add Controls
- Write Code
- Test the Application

Functionality Testing
Extra Credit Task

* Class 105

Title: **Programming C# Application**

Variables

Prerequisites: Class 102, Class 103, Class 104.
Language: C#.
User Level: Beginner.

Contents

A Variable's Mission

A Variable Declaration

Variable Naming Rules

- Using Keywords
- Special Characters
- Using Numbers
- Variable Naming Conventions
- Selecting Data Types

Using Value Types

- Reading and Writing to Variables

Using Reference Types

- Adding References
- Using Class Libraries
- Referencing .NET Framework Classes
- Referencing Third-Party Classes
- Adding the Using Directives

Instantiating Object Variables

Variable Scope

- Variable Accessibility and Lifetime
- Block Scope
- Procedure Scope
- Class Scope

Review Lab 104:

Homework Lab 105:

Create a New Project
Design User Interface
Add Controls
Write Code

Loan Calculator

Funny Labels