PROJECT REPORT

ON

C# And **XAML** used Calculator

Submitted on partial fulfillment for the three years degree course

Bachelor of Vocational (Information Technology)

Of

GAUHATI UNIVERSITY

Submitted by –
Name: ANAMIKA DEKA
Dept. of B.Voc (IT)
6th Semester
Roll No- UA-211-200-0016
Reg. No- 21069025

Guided By –
Dr. Devajit Mahanta
H.O.D. of B.Voc. (IT)

DEPARTMENT OF B.VOC (IT) 6th (SEM GROUP A)
NALBARI COMMERCE COLLAGE
NALBARI, ASSAM- 781334

ACKNOWLEDGEMENT

C# - The Engine of Intelligence: C# provided the robust logic and functionality that powers the calculator. Its versatility and clear syntax made complex calculations a breeze. With an object-oriented approach, C# laid the foundation for a scalable and maintainable codebase, ensuring the calculator's reliability.

XAML - Crafting User-Friendly Design: XAML brought the calculator's user interface to life with its declarative markup language. The collaboration between C# and XAML seamlessly blended logic with design. XAML's support for data binding and styling added a touch of elegance to the interface, creating a user-friendly and visually appealing experience.

WPF - Dynamic and Responsive Interface: WPF played a crucial role in making the interface dynamic and responsive. Its features, including data binding and animation support, contributed to an engaging user experience. The seamless integration with XAML allowed for the creation of interactive UI elements, enhancing the overall usability of the calculator.

.NET 5.0 - Modernizing Development: Embracing .NET 5.0 was a decision to embrace modern development practices. The enhancements and cross-platform capabilities of .NET 5.0 elevated the project to contemporary standards. This not only ensured high performance but also positioned the calculator at the forefront of modern software development.

Gratitude to the Community: I express my gratitude to the .NET community for its continuous support. The collaborative spirit and shared knowledge within the community were instrumental in overcoming challenges and pushing the boundaries of the project. The vibrant .NET ecosystem significantly contributed to the success of this endeavor.

About Visual studio

Visual Studio is a powerful integrated development environment (IDE) created by Microsoft. It's widely used by software developers for various programming languages, including C#, C++, and Python. This IDE offers a comprehensive set of tools and features to streamline the software development process.
One of the standout features of Visual Studio is its rich code editor, which provides code completion, debugging, and real-time syntax checking, making it easier to write clean and error-free code. The integrated debugger is robust, helping developers identify and fix issues quickly.

Visual Studio supports a wide range of project types, from desktop applications to web and mobile development. It has excellent integration with Azure, Microsoft's cloud platform, making it a preferred choice for cloud-based application development.

Extensions and add-ons, available through the Visual Studio Marketplace, enhance the IDE's functionality. Developers can customize their development environment by adding extensions that cater to their specific needs.

Version control is made easy with built-in Git support, enabling collaborative coding and code version management. Visual Studio also includes excellent tools for unit testing and continuous integration, ensuring software quality.
The Visual Studio ecosystem extends to Visual Studio Code, a lightweight code editor, and Visual Studio Online, which offers cloud-based development collaboration and code repositories.
Overall, Visual Studio is a comprehensive software development environment that caters to both individual and team needs. It simplifies and enhances the software development process with its feature-rich environment and extensive integration capabilities

Contents

Introduction

Welcome to the exciting world of software development, where creativity meets functionality! In this project, we will embark on a journey to create a powerful and user-friendly calculator application using two es0sential tools in the world of Windows application development: **C#** and **XAML.**

C# (pronounced "C-sharp") is a versatile and modern programming language developed by Microsoft. It's widely used for building Windows desktop applications, web applications, and more. When combined with XAML (Extensible Application Markup Language), a markup language for designing user interfaces, you have a dynamic duo that allows you to craft stunning and responsive user interfaces with ease.

Our goal with this project is to build a calculator application that not only performs basic arithmetic operations like addition, subtraction, multiplication, and division but also incorporates advanced features such as memory functions, history tracking, and a visually appealing user interface. Whether you're a beginner looking to learn the ropes of C# and XAML or an experienced developer seeking to enhance your skills, this project will provide valuable insights and hands-on experience. Throughout this journey, we will explore the fundamentals of C# programming, delve into the intricacies of XAML for crafting beautiful user interfaces, and leverage the power of event-driven programming to make our calculator respond seamlessly to user interactions. By the end of this project, you'll have a solid understanding of how to create Windows applications using C# and XAML.