

GUJARAT TECHNOLOGICAL UNIVERSITY, AHMEDABAD



C K Pithawala College of Engg. & Technology, Surat

Computer Engineering Department

**A detailed report on
“ Internship in C# .NET Framework ”**

**Under the Subject of
Summer Internship (3170001)**

BE – IV, VIIth Semester

Academic Year: 2022-2023

**Submitted By
(Akhilesh Vijaypratap Singh)
(190090107062)**

**Guided By
(Prof. Neelum Surti)**

C K Pithawala College of Engg. & Technology, Surat



CERTIFICATE

This is to certify that the report entitled “**Internship in C# .NET Framework** ” has been carried out by **Akhilesh Vijaypratap Singh**, Enrollment No: **190090107062** under the subject of “Summer Internship”(3170001) for the degree of Bachelor of Engineering in Computer Engineering in 7th Semester and presented the report as per guidelines of Gujarat Technological University, Ahmedabad during the academic year 2022-2023.

Place: Surat

Date:

Guide

Internal Examiner

External Examiner

Head of Department

Certificate of Completion



Letter of Experience

MEGAMINDS TECHNOLOGIES PVT.LTD

**MEGAMINDS**
TECHNOLOGIES PVT LTD

"Technologize your desire"

Letter of Experience

To Whom It May Concern

This letter is to certify that **Singh Akhilesh** has successfully completed his internship with MegaMinds Technologies Pvt Ltd. His internship tenure was from 21st June 2022 to 9th July 2022. He was working with **C# .Net developing** and was actively & diligently involved in the projects and tasks assigned to him.

During the span, we found him to be a punctual and hardworking person. His learning powers are good and he picks up swiftly. His feedback and evaluation proved that he learned keenly. Moreover, his interpersonal and communication skills are brilliant.

We wish him a bright future.

Sincerely,

Tanvi Patel

Human Resource,

MegaMinds Technologies Pvt Ltd.




19/7/2022

 www.megamindstechnologies.com

 +91 8866 766 756

 info@megamindstechnologies.com

6, Sadhana Society, Opp. Multi Level Parking, Minibazar, Varachha, Surat-395006

Student's Declaration

I, undersigned, **Akhilesh Vijaypratap Singh** a student of 7th semester, COMPUTER ENGINEERING, CKPCET, declares that the Summer Internship report titled “ **Internship in C# .NET Framework** ” is a result of my own work and my indebtedness to other work publications, references, if any, have been duly acknowledged. If I am found guilty of copying any other report or published information and showing it as my original work, I understand that I shall be liable and punishable by Institute or University, which may include ‘Fail’ in the examination, ‘Repeat study & re-submission of the report’ or any other punishment that Institute or University may decide.

Name of Student: **Akhilesh Vijaypratap Singh**

Enrollment Number: **190090107062**

Signature:

Acknowledgement

I wish to express our sincere gratitude to our External guide Mr. Akash Kathariya for continuously guiding me at the company and answering all my doubts with patience. I would also like to thank my Internal Guide Prof. Neelum Surti for helping us through our internship by giving us the necessary suggestions and advice along with their valuable coordination in completing this internship.

We also thank our parents, friends, and all the members of the family for their precious support and encouragement which they provided in the completion of our work. In addition, we would also like to mention the company personnel who gave us permission to use and experience the valuable resources required for the internship.

Thus, in conclusion to the above said, we once again thank the staff members of MegaMinds Technologies Private Limited for their valuable support in the completion of the Summer Internship.

Thank You

Akhilesh Vijaypratap Singh

(190090107062)

Table Of Contents

Table Of Contents	7
List Of Figures	8
List Of Tables	9
List Of Symbols, Abbreviation, Nomenclature	10
List Of Abbreviations	10
Abstract	11
1. Company Brief	12
1.1 History, Mission, Visions	12
1.2 Products/Services	13
2. Introduction	14
2.1 Motivation /Objectives of the work carried out	14
2.2 Problem statement or Scope of work	14
3. Internship	15
3.1 Technology Stack along with knowledge gained in each technology	15
3.2 Description of the sample tasks or projects carried out	16
3.3 Implementation detail/results obtained / screenshots	17
4. Conclusion / Future scope	20
5. References	21
6. Annexure	22

List Of Figures

Fig.1 Properties

Fig.2 Delegates

Fig.3 Generic Method

Fig.4 Generic Class

Fig.5 Unsafe code

Fig.6 Phonebook Console Application

List Of Tables

Table.1 List of Abbreviations

Table.2 Company Brief

Table.3 Annexure

List Of Symbols, Abbreviation, Nomenclature

List Of Abbreviations

Abbreviations	Full Form
IT	Information Technology
IOS	iPhone Operating System
NET	Network Enabled Technologies
ASP	Active Server Pages
C#	C Sharp
IDE	Integrated Environment Development
EXE	Executable File
DLL	Dynamic Link Library
CLR	Common Language Runtime
OOP	Object Oriented Programming
VB	Visual Basic
C++	C Plus Plus
I/O	Input Output
LIFO	Last In First Out
FIFO	First In First Out
LINQ	Language-Integrated Query
CPU	Central Processing Unit

Table.1 List of Abbreviations

Abstract

Website Development and learning .NET framework were the main objectives of this internship. To develop a web-based application there are several programming languages that are in use. Some of them are only used for the frontend and backend design of the software. For example, HTML3, HTML5, CSS, Bootstrap, JavaScript etc.

There are also some other programming languages that are used to develop the dynamic functions of the software or application. For example- PHP, Java,C# etc. Nowadays there are also some frameworks that are used vastly. Frameworks are basically structured programming by using Model, View, and Controller. It is called MVC. If we develop a web-based application that is very useful for us because we can access it from anywhere in the world. It is very helpful for our daily life.

That is why I chose an offline internship based on the “C# .NET framework”. Training in MegaMinds Technologies Private Limited added huge experiences to my upcoming career. Solving real-life problems was another key issue. This report takes us through all the details of .NET Framework knowledge and experience gathered during this 2-week internship period.

1. Company Brief

1.1 History, Mission, Visions

History: MegaMinds Technologies Pvt. Ltd. is a Professional Web development and design company delivering web successes since 2013. MegaMinds has focused on creating websites and online strategies for clients. We work at a unique intersection between design and technology. We are neither an IT firm nor a traditional ad agency. But this is where we also find our strengths. We help clients take advantage of this dynamic by first clearly defining objectives, and then using our team's extensive knowledge to develop the right solution.

In today's technology-driven marketing environment, MegaMinds provides the expertise needed to leverage the Internet to your advantage. Achieve your business objectives by working closely with our team to develop and execute a strategic plan for your web presence. Contact us today to get started.

Mission: Capture client's needs from 360° and deliver the appropriate solution.

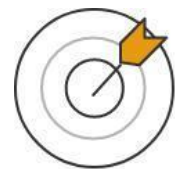
Expand our company to cross the border.



Vision: To become a top-notch IT solution provider.



Goal: Providing such a pleasant and flexible organizational culture to nurture the talent of every employee of the company.



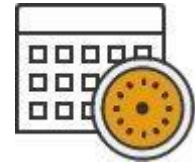
Core Values:



Discipline



Happiness



Innovations

Table.2 Company Brief

1.2 Products/Services

- Services Offered
 - Digital Branding
 - Digital Marketing
 - Search Engine Optimization
 - Social Media Marketing
- Development Services
 - E-Commerce Website Development
 - Open Source Customization
 - IOS / Android Cross-Platform
 - Web Design & Web Development

2. Introduction

2.1 Motivation /Objectives of the work carried out

Internships are formal programs designed to provide practical experience in a real-world environment to students who are new to the field.

Internships help to build a component resume by giving students visible work experience. Although colleges and universities assist students in finding the right Internship programs, it is the responsibility of the would-be interns to carefully examine internship programs, and see if those programs actually offer the training they need.

2.2 Problem statement or Scope of work

Nowadays web development is very popular in the IT field, so I am choosing my internship period in web development.

I am doing my internship in the .NET framework to implement dynamic websites. In our college or any other courses, I am learning only the front end of the website technologies like HTML, CSS, Javascript, Bootstrap, Tailwind, etc.

Now I want to build a dynamic website using the .NET framework. That's why I am choosing the Internship in .NET Framework.

3. Internship

3.1 Technology Stack along with knowledge gained in each technology

- **NET/C#** The tech stack is **ASP.NET**, used for web development. The ASP.NET Core variant of ASP.NET includes the popular Blazor component that allows for C# web development instead of JavaScript.
 - **C#:** C# A programming language is a modern programming language. It derives its characteristics from its predecessors like C and C++. It can perform a wide range of tasks and processes across different niches.
 - Among other languages, C# is gaining huge popularity for developing web-based applications. Its core concepts help build an interactive environment and provide functionalities that the dynamic web platform requires.
 - Most aspiring full-stack developers choose this versatile language. It works on both platforms: **Windows .NET framework** and other open-source platforms. Therefore, it provides incredible efficiency and scalability.
 - **ASP.NET:** ASP.NET is a web development platform, which provides a programming model, a comprehensive software infrastructure, and various services required to build up robust web applications for PC, as well as mobile devices.
 - ASP.NET works on top of the HTTP protocol and uses the HTTP commands and policies to set a browser-to-server bilateral communication and cooperation.
 - ASP.NET is a part of the Microsoft .Net platform. ASP.NET applications are compiled codes, written using the extensible and reusable components or objects present in the .Net framework. These codes can use the entire hierarchy of classes in the .Net framework.
 - ASP.NET is used to produce interactive, data-driven web applications over the internet. It consists of a large number of controls such as text

boxes, buttons, and labels for assembling, configuring, and manipulating code to create HTML pages.

- The ASP.NET application codes can be written in any of the following languages:
 - C#
 - Visual Basic.Net
 - Jscript
 - J#

3.2 Description of the sample tasks or projects carried out –

★ Introduction to OOP's overview

- Classes and Objects | Constructor and Destructor | Function Overloading
- Encapsulation | Inheritance | Interface | Polymorphism
- Class & Object | Class Members | Constructor
- Access Modifiers | Properties | Inheritance | Polymorphism
- Abstraction | Interface | Enum | Files | Exceptions
- Abstract Class & Method | Method Overloading, Overriding & hiding
- Partial Class & Methods | Extension Methods
- Structure | namespaces | Preprocessor Directives
- Regular Expression | Exception Handling | File I/O
- Advanced Topics
 - Attributes | Reflection | Properties
 - Indexers | Delegates | Events
 - Collections | Generics | Anonymous Methods
 - Unsafe Codes | Multithreading
- Video Tutorials

3.3 Implementation detail/results obtained / screenshots –

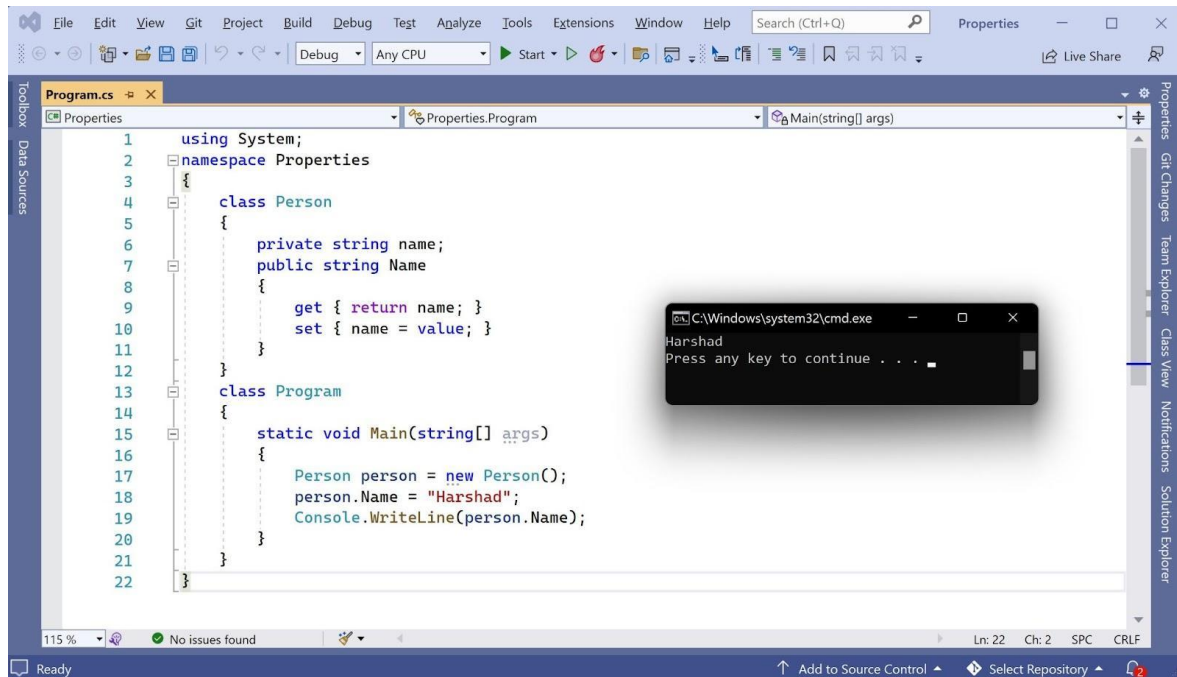


Fig.1 Properties

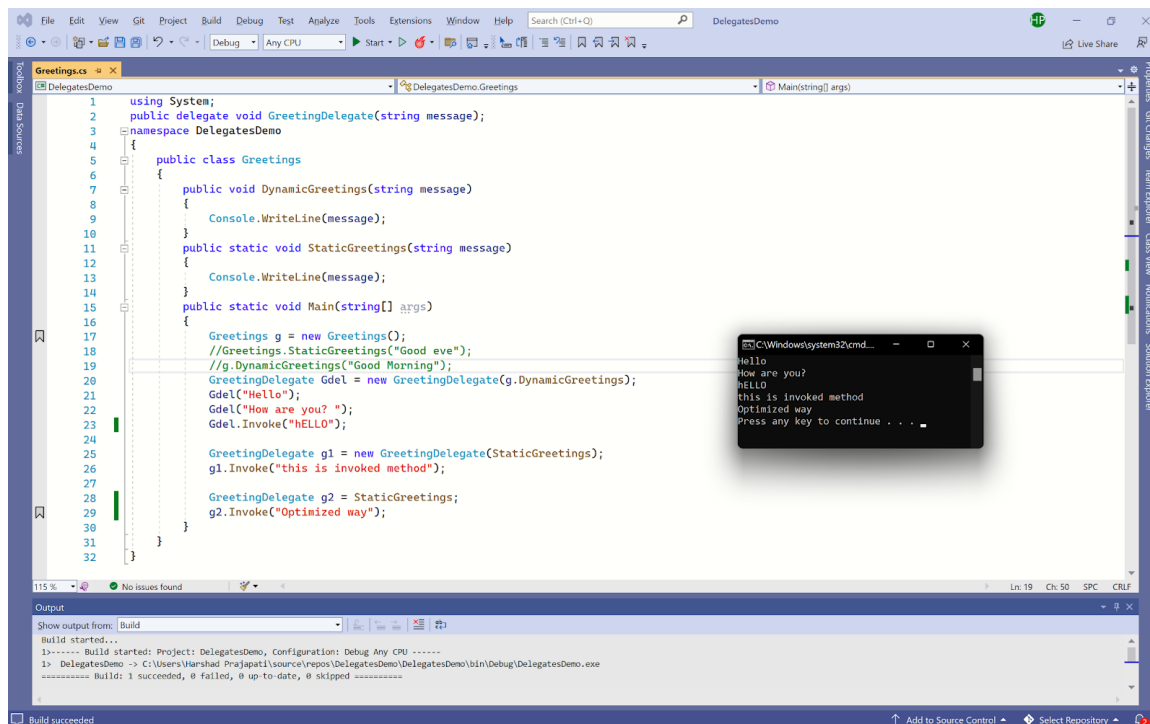


Fig.2 Delegates

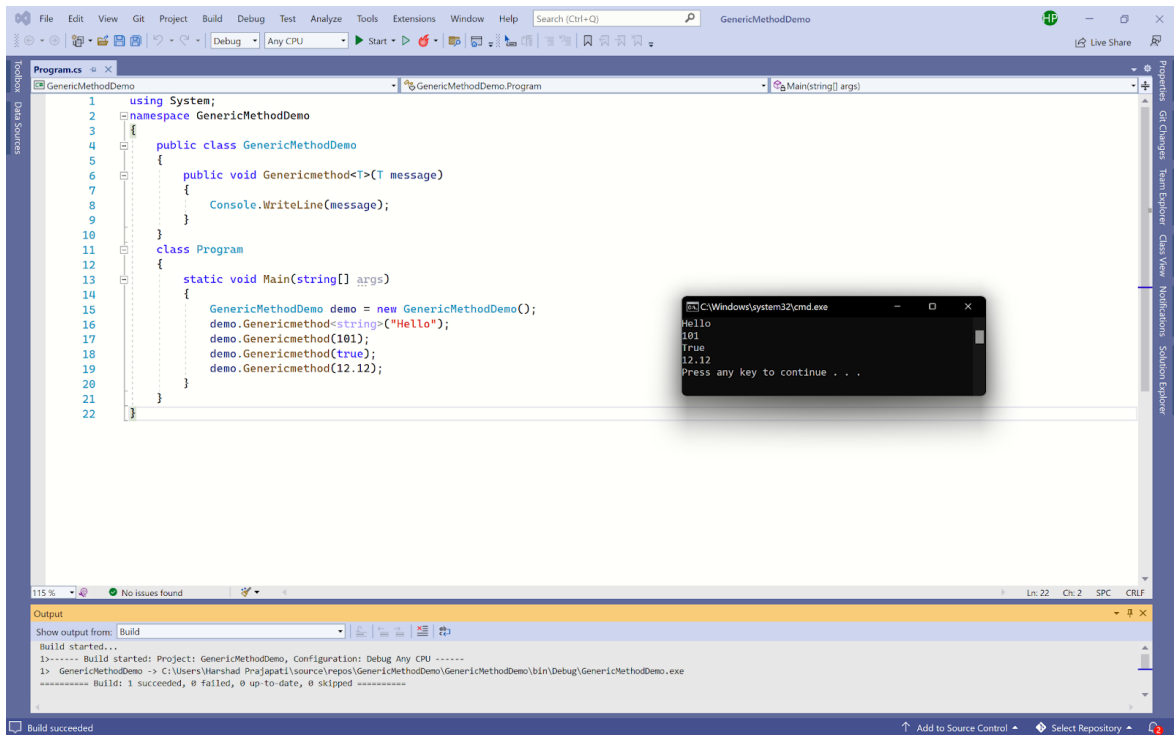


Fig.3 Generic Method

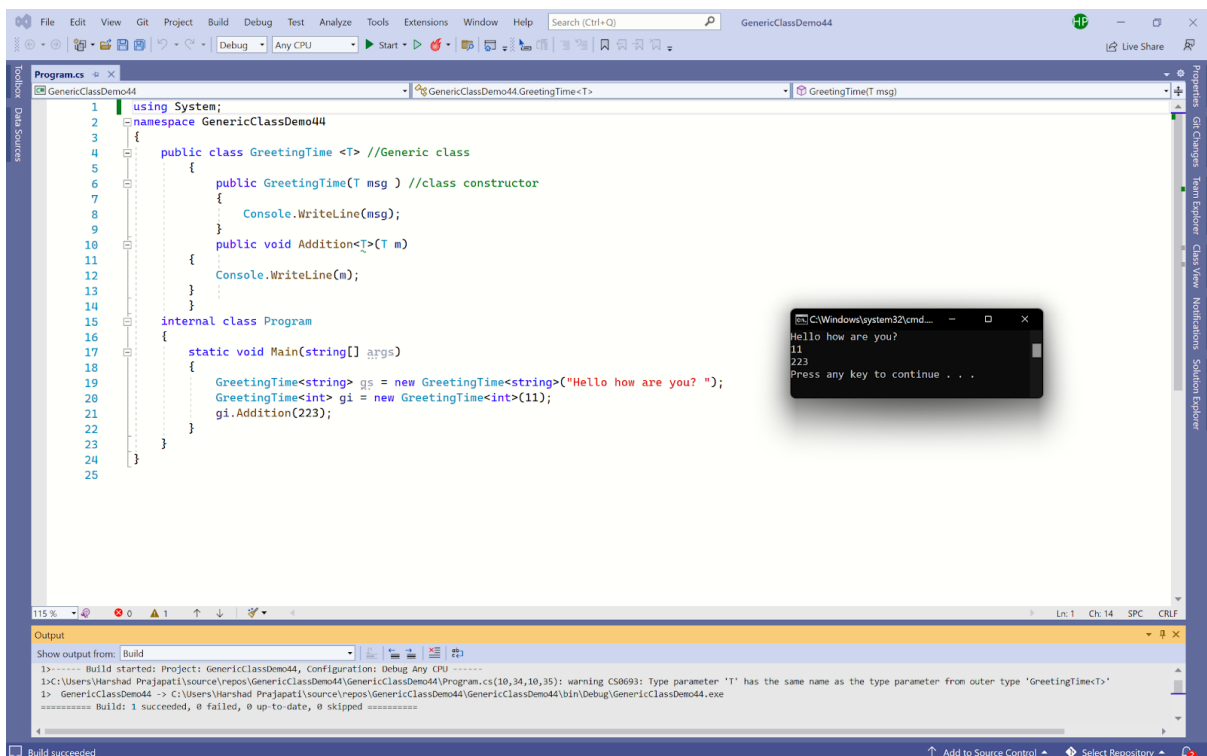


Fig.4 Generic Class

4. Conclusion / Future scope

- During these 15 days of internship, I have worked under MegaMinds Technologies Private Limited where I have refreshed my knowledge about **Object Oriented Programming using C#**.
- After getting all the concepts about Object Oriented Programming, I am applying this knowledge to build a **Basic Console Application** using .NET Framework.
- On the other hand, using all this knowledge create one basic “**Phonebook Console Application**” to get the data from the customer and retrieve as users' needs.
- Thus, this internship has helped me to gain practical knowledge and skills. This has made an update about the latest technologies which are used in developing the website.

5. References

- **C# Corner** - <https://www.c-sharpcorner.com/>
- **W3Schools** - https://www.w3schools.com/cs/cs_oop.php
- **DotNetTricks** - <https://dotnettutorials.net/lesson/>
- **JavaTPoint** - <https://www.javatpoint.com/net-framework>
- **Microsoft .NET** - <https://docs.microsoft.com/en-us/dotnet/csharp/tutorials/attributes>

6. Annexure

Training Schedule

Training Schedule at (MegaMinds Technologies Private Limited)

Date	Time	Working Hours	Daily/Periodic Work Details
21/06	10:00 am - 07:00 pm	8 Hours	Registration Form (HTML/CSS/JavaScript)
22/06	10:00 am - 07:00 pm	8 Hours	Template (HTML /CSS)
23/06	10:00 am - 07:00 pm	8 Hours	jQuery
24/06	10:00 am - 07:00 pm	8 Hours	jQuery AJAX
25/06	10:00 am - 07:00 pm	8 Hours	OOP Concept
Sunday(26/06)			
27/06	10:00 am - 07:00 pm	8 Hours	Class and Object , Abstraction , Polymorphism, Inheritance , Encapsulation, Access Modifiers , Constructor , Destructor
28/06	10:00 am - 07:00 pm	8 Hours	Class and Object, Access Modifiers , Constructor , Destructor (With Code)
29/06	10:00 am - 07:00 pm	8 Hours	Implementation of Static Class , Partial Class , Creating Library and its Use (With Code)
30/06	10:00 am - 07:00 pm	8 Hours	Encapsulation, Abstraction , Interface , Polymorphism , Overloading , Overriding, Hiding (With Code)
01/07	10:00 am - 07:00 pm	8 Hours	Enum, Files, Exceptions, Extension

			Method (With Code)
02/07	10:00 am - 07:00 pm	8 Hours	Structure, namespace, Preprocessors Directives, Regular Expressions (With Code)
Sunday(03/07)			
04/07	10:00 am - 07:00 pm	8 Hours	Attributes, Reflection, Collections
05/07	10:00 am - 07:00 pm	8 Hours	Indexers, Delegates (With Code)
06/07	10:00 am - 07:00 pm	8 Hours	Anonymous Methods, Generic, Implementation of Attributes, Reflection and Regular Expressions (With Code)
07/07	10:00 am - 07:00 pm	8 Hours	Generic with Collections
08/07	10:00 am - 07:00 pm	8 Hours	Unsafe Code, Multithreading , Events (With Code)
09/07	10:00 am - 07:00 pm	8 Hours	Create one Small Project (PhoneBook Console App)
Total Hours =		136 Hours	