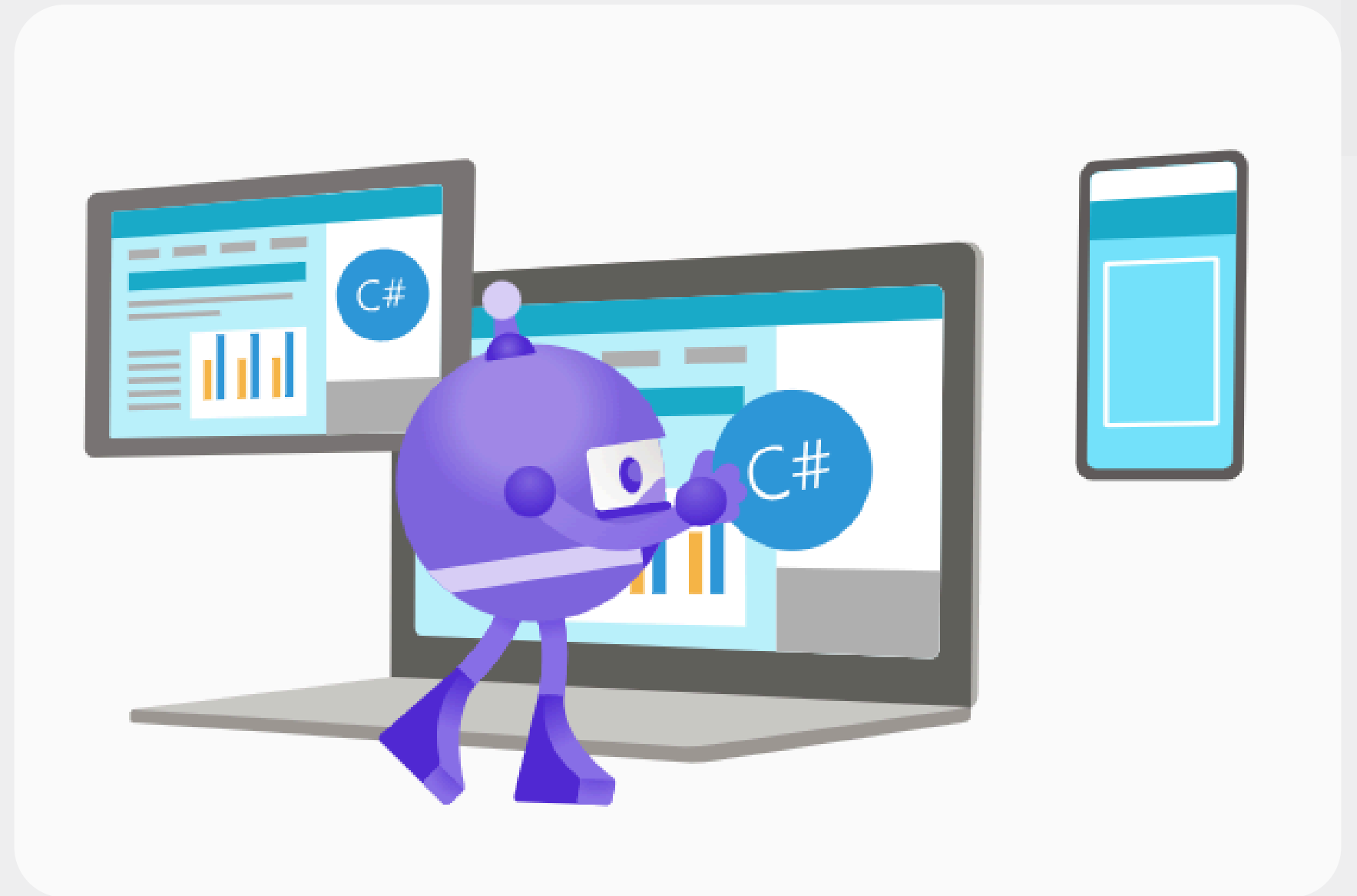


LECTURE 1

INTRODUCTION TO C#



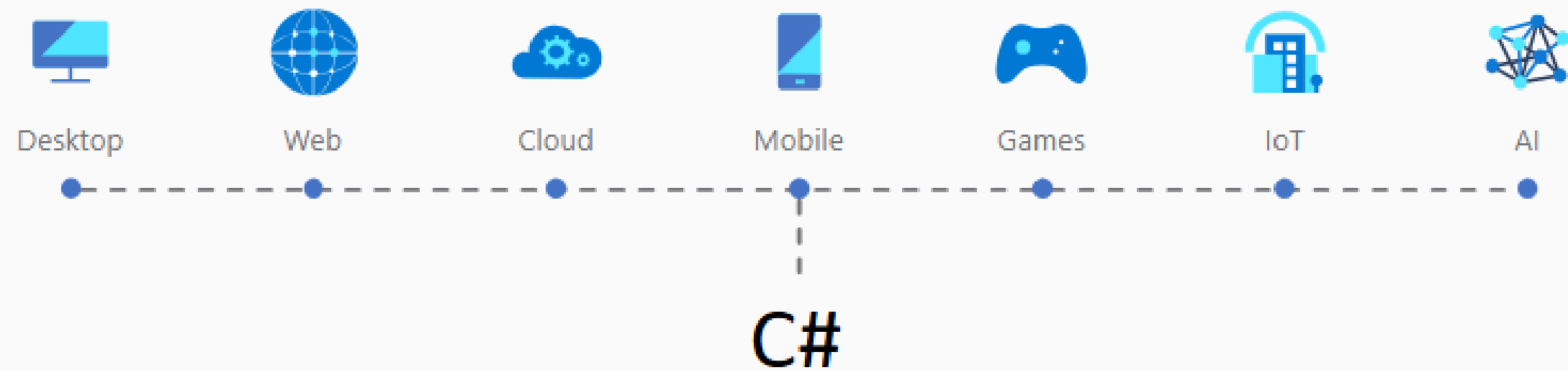
WHAT IS C#?

- C# is pronounced "C-Sharp".
- It is an object-oriented programming language created by Microsoft that runs on the .NET Framework.
- C# has roots from the C family, and the language is close to other popular languages like C++ and Java.
- The first version was released in year 2002. The most recent stable version of the language is C# 12.0, which was released in 2023 along with the release of .NET 9.

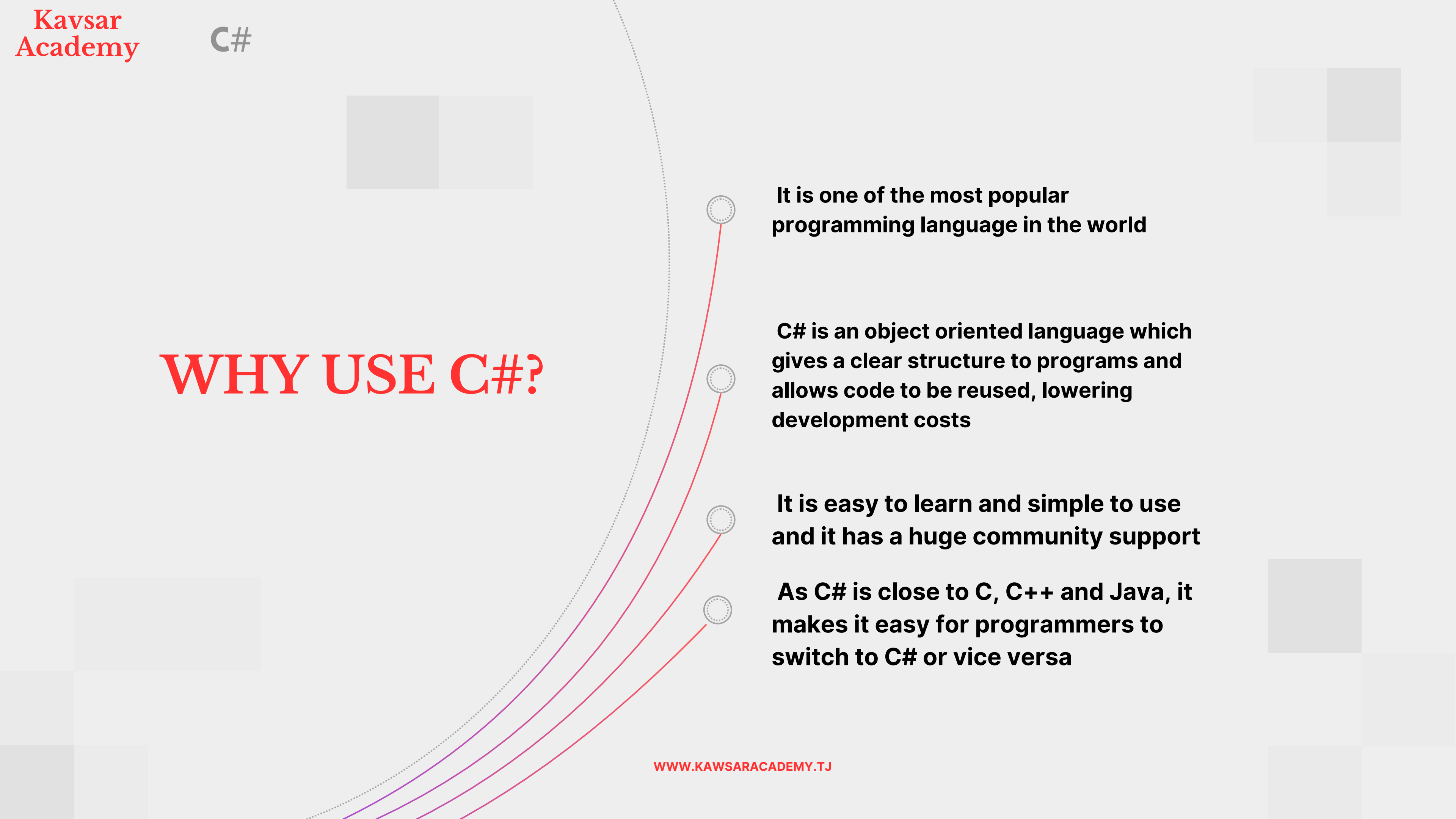


C# IS USED FOR :

- Mobile applications
- Desktop applications
- Web applications
- Web services
- Web sites
- Games
- VR
- Database applications



And much, much more!



WHY USE C#?

It is one of the most popular programming language in the world

C# is an object oriented language which gives a clear structure to programs and allows code to be reused, lowering development costs

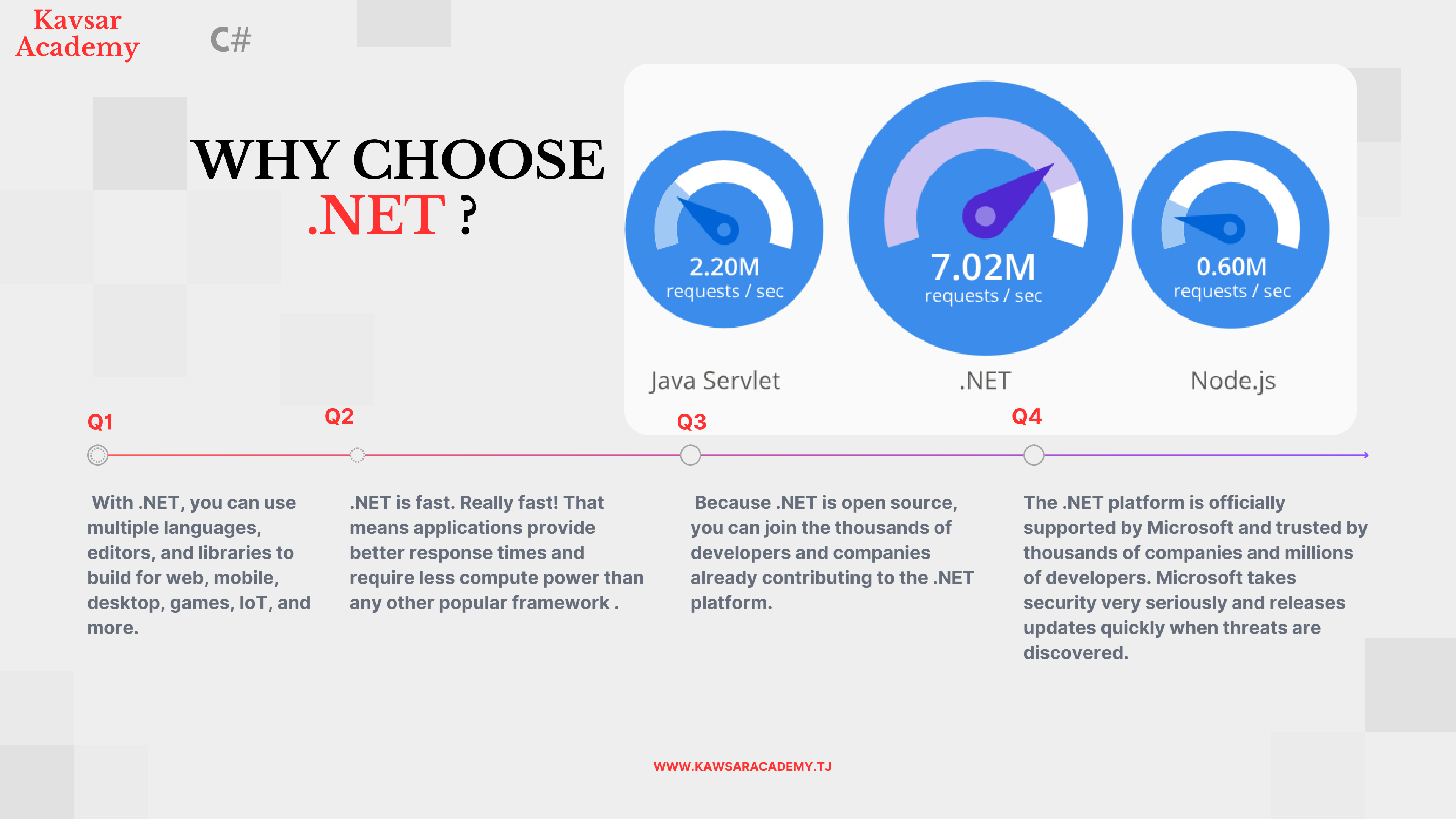
It is easy to learn and simple to use and it has a huge community support

As C# is close to C, C++ and Java, it makes it easy for programmers to switch to C# or vice versa

WHAT IS .NET?

- **.NET** is a free, cross-platform, open source developer platform for building many different types of applications.
- **.NET** is a framework of C#. Framework is collection of libraries. The latest version of the platform at the moment - **.NET 8**.
- **.NET** comes in two major flavors, **.NET Framework** for Windows and **.NET Core** for Windows/MacOS/Linux
- **C#** is a programming language.
- To build programs with C#, you need the .NET ("**dotnet**") platform





WRITTEN POPULAR WEBSITE IN .NET



Bill Gates once said that the .NET platform is the best that Microsoft has created.

CLI (COMMAND LINE INTERFACE)

The .NET Command-Line Interface (CLI) is a tool that allows developers to build, run, and manage applications using the .NET framework. It provides a command-line interface that can be used on different operating systems, such as Windows, macOS, and Linux.

CLI stands for:

- Command Line Interface
- Command Line Interpreter
- Command Line Input

SOME USABLE .NET CLI COMMANDS



terminal

```
dotnet new - Initializes a C# project for a given template.  
dotnet run - Runs the application from source.  
dotnet build - Builds a .NET application.  
dotnet clean - Clean build outputs.  
dotnet restore - Restores the dependencies for a given application.  
dotnet sln - Options to add, remove, and list projects in a solution file.  
dotnet add reference - Adds a project reference.
```

Thank You

