# **Project Proposal**

* In the beginning , the team member are:
* سيف الدين هاني شعبان
* شريف محمد حسن
* مريم السيد محمد
* رفيده عزت منصور
* روان محمد حسن
* The programming language we picked is **Mojo .**
* We choose this programming language because:
* Mojo is a programming language that combines the usability of python with the performance of C unlocking unparalleled programming ability of Ai hardware and extensibility of Ai models.
* If you want more control lets you manage memory in a way similar to languages like C++ and Rust. It has tools that help break down complex tasks into smaller bits that your computer can handle faster. It also has an 'Autotune' feature that fine-tunes your code for the best performance on your machine.
* It is like an advanced version of Python, similar to how TypeScript is an advanced version of JavaScript. If you know Python, you can easily get the hang of Mojo.
* Mojo seeks to simplify the AI development process. Because of its simplicity, developers can focus on creating cutting-edge AI solutions rather than deciphering a complicated language. It lets you get into the nitty-gritty parts of coding. With MLIR, Mojo gives you the best of both worlds: easy programming and the power of in-depth optimizations.
* It's keeps track of data and frees up space when it's not needed anymore. This means it doesn't waste time and resources on unnecessary tasks, making your programs run smoothly.
* Mojo's features and design put it in an ideal position to be a major player in these fields, as emerging technologies like AI, Machine Learning, and the Internet of Things (IoT) require languages that can manage large amounts of data efficiently, provide high performance, and integrate well with other systems.
* Compared to languages like Python, Mojo exhibits faster execution times, which makes it a better option for applications that require high performance.
* Mojo is made to be effective in a wide range of real-world applications, utilizing its features to solve problems in various fields. Here are some real-world uses for Mojo together with case studies.
* Mojo uses dynamic typing and a syntax close to Python, which makes it simple to learn, particularly for Python developers. The language's performance is improved by supporting both ahead-of-time (AOT) and just-in-time (JIT) compilation. Additionally, the syntax of Mojo enables the development of parameterized types and functions, which enhances abstraction, promotes code reuse, and facilitates compiler optimizations like autotuning.
* The Modular Docs also include a comprehensive list of the libraries that are available in Mojo, which enables developers to use these libraries for more complex programming.
* The main idea of our project is to solve a problem with **artificial intelligence**.