Task1

AI without data:

Deep neural networks require large training sets but suffer from high computational cost and long training times. Training on much smaller training sets while maintaining nearly the same accuracy would be very beneficial. In the few-shot learning setting, a model must learn a new class given only a small number of samples from that class. One-shot learning is an extreme form of few-shot learning where the model must learn a new class from a single example. We propose the `less than one'-shot learning task where models must learn N new classes given only M<N examples and we show that this is achievable with the help of soft labels. We use a soft-label generalization of the k-Nearest Neighbors classifier to explore the intricate decision landscapes that can be created in the `less than one'-shot learning setting. We analyze these decision landscapes to derive theoretical lower bounds for separating N classes using M<N soft-label samples and investigate the robustness of the resulting systems

Task2

**AI COMPANIES**

[**AKASA**](https://akasa.com/) aims to reduce unnecessary expenses for patients through healthcare revenue cycle management. A combination of automation and [machine learning](https://builtin.com/machine-learning), AKASA’s platform collaborates with electronic health records to analyze data and develop automated, efficient processes. It helps healthcare teams reduce their workloads while supporting the needs of patients with accurate billing and less confusing workflows.

[**Harver**](https://harver.com/) is an HR tech platform featuring AI- and data-driven solutions — like automated interviews — designed to make hiring more efficient and streamlined. In 2022, Harver acquired the HR tech startup Pymetrics, which made gamified soft skill assessments powered by artificial intelligence.

[**Robust Intelligence**](https://www.robustintelligence.com/) instills integrity into [machine learning](https://builtin.com/artificial-intelligence/machine-learning-examples-applications) programs to eliminate [AI risks](https://builtin.com/artificial-intelligence/risks-of-artificial-intelligence). The platform works to identify any issues with AI programs through the entire machine learning process. During pre-production, the platform completes AI stress testing for production readiness. In post-production, there is a test for firewall damage and to discover improvements. Robust Intelligence runs this process continuously, allowing for automated root cause analysis each time.

[**DISCO**](https://www.csdisco.com/) assists legal organizations in case management, e-discovery and legal document reviews. The company established a cloud-native, AI-powered platform to simplify administrative tasks by examining [**data analytics**](https://builtin.com/data-science/data-analytics) for relevant legal information. DISCO’s product portfolio includes a partner program, case-building software and case request management.

[**Veda Data Solutions**](https://builtin.com/company/veda-data-solutions)With many inefficiencies in the healthcare industry, [Veda](https://vedadata.com/) brings NASA-backed intelligence and AI technology to patient experiences. Providers can automate data-related tasks, removing human errors and organizing information quickly. Resolving administrative issues enables healthcare experts to spend less time tracking down records and more time caring for patients

[**DataRobot**](https://www.datarobot.com/) provides data scientists with a platform for building and deploying machine learning models. The software helps companies solve challenges by finding the best predictive model for their data. DataRobot's tech is used in healthcare, fintech, insurance, manufacturing and sports analytics.

Task3

A compiled language : is a programming language that is generally compiled. Types of compiled language

Example : – C, C++, C#, CLEO, COBOL, etc.

An interpreted language : is a programming language whose implementations execute instructions directly and freely, without previously compiling a program into machine-language instructions

Example : – JavaScript, Perl, Python, BASIC, etc.

Task4

Open\_Source programming Langauge:

1. **JavaScript**

### Swift

### Java

### Kotlin

### C++

### C#

### C

### python

### Shell

closed\_Source programming Langauge:

A language is closed-source as such. For example, G++ is open source while MSVC++ is closed source. ISO C++ is neither, it's a non-free non-proprietary standard.

## Task5

R Programming Language:

Another program to make our list of language programs for Open-source languages is R. This language program is still ranked highly for its efficiency at analyzing large data and evolving ad hoc issues. R can also be used for mining projects too.

## Task6

## programming language support oop:

Java, C#, Ruby, Python, TypeScript, and PHP.

## programming language not support oop:

Assembly, C, BASIC, Fortran, Forth, Pascal, Brainf\*\*k, Malbolge.