**LLMs Notes**

**Finetuning**: trainng a pretrained model for a specific task.

Problem: what is there is a very short data or no labled data

Solution: use N-shot learning (transfer learning)

Types of N-shot learning:

1. **Zero-shot**: no task specific data

- No expilict traning

- Uses Languages understaning and context

- Generalize without any prior example

**Example**: Suppose a child has only seen pictures of horses and is asked to identify a zebra with additional information that it looks like a striped horse. In that case, they can correctly identify it without seeing specific examples of zebras

1. **Few-shot**: few task specific data

- Allow model to learn a new task with very few examples

- This is achieved using the knowledge the model has gained from previous tasks

- When the number of examples used for fine-tuning is only one, it is called one-shot learning.

Example: a student attends lectures and takes notes but doesn't study extra for exams. On exam day, they encounter a new question similar to the one taught in the class and can answer it correctly by relying on prior knowledge and experience