Transcript for lesson 2:

Slide 1: Starting our 2nd lesson

Slide 2: We will talk today about what is Natural Language and Computer Language, types of computer language, Different programming languages being used today, why we are using python, Daily life applications that are built with python, Play a game.

Slide 3 & 4: How you guys are able to know what I am saying, it's because you are able to understand my language that's how you know what I am saying. You are able to communicate with me in certain way of expression. Humans are natural beings and the way through we communicate such as language is called natural language.

Similarly, we all can speak Urdu, so you understand Urdu. If I speak Pashto will you be able to know what I am saying… not possible …. Right? Because you can't process the input (my words) as you don't know Pashto.

In the same way computer language is what computers understand and we have to know computer language so that we can communicate with computers.

Slide 5: Showing them some examples of natural language.

Slide 6: Increasing the curiosity by letting them think of 1 sentence/word and converting it into Machine language using online conversion from English to binary.

In the end asking them what do you think about it which one is more easy?

Slide 7: Talking about different types of computer language

Programming language: sets of words and symbols to write a program

Two types

1. High level language: It is language that is understandable by humans. every high-level language has a specific syntax (collection of rules). example: C++, java, Python, Ruby etc.

2. Low level language: It's closer to computers and far away from humans. Computers can easily understand them, but it is difficult for humans to understand.

It is further divided into Machine language and Assembly language

Machine Language: It is a low-level language that has instructions written in it in binary form such as 0's and 1's. It is a fundamental language of computers.

Assembly language: It is a type of low-level language that uses mnemonics (human-readable symbols) instead of binary.

For example: MOV, ADD, SUB

Flow: High level -> Assembly (assembler) -> Machine language

Slide 8: Why we are using python? Talking and exploring some benefits of python.

- **Simple Syntax:** comparing how syntax is different for c++, java and python from slide 9
- **Versatile:** talking about where it is being used such as in games, AI, websites etc. Also showed them applications that use python such as YouTube recommendation, google search engine, and WhatsApp auto correct. **(Include slide 9 and 10 – also show them while using the applications that how strong this language is)**
- **Big Community:** A lot of people use python and that's why you will find many projects already done in python, if you face any error and you share on google and ask you will find multiple answers. Python is being used a lot in AI/ML, that's why a lot of research is going on in it.
- **Friendly for New Learners:** Easy to understand as more like English.

Slide 11: Play a rock, paper and scissors with one another and then play with computer

And just share a glimpse of what is happening in the code after playing.

Sharing the code in main.py