Day and Date deva	Brief Description of the daily activity	Learning Outcome	Person In-Charge
Day 1 Dt. 13/03/2024	We as interns were introduced to fundamental concepts of Computers, that encouraged our awareness on computer science	✓ Definition of Computer ✓ Understanding on ASCII and its significance ✓ Types of Programing Languages and Translators ✓ Number systems and conversions	
Day 2 Dt. 14/03/2024	On our second day, we were introduced to python, and discussed Python's history, advantages, and features.	✓ Python's History, Characteristics ✓ Python's support for Programming paradigms ✓ Key Aspects of Object Oriented Programming.	
Day 3 Dt. 15/03/2024	On this day, we have covered the concepts of python like variables, built-in functions, and its data types	✓ Python's Data Types, Variables, naming conventions and Keywords ✓ Type casting in python. ✓ Python's Built-in functions and their role.	
Day 4 Dt. 18/03/2024	We have explored the fundamental concept of python's functionality i.e., Operators	✓ Definition and classification of operators in Python ✓ Understanding on Boolean, Assignment, Comparison, and Arithmetic Operators. ✓ Gained a Hands on Practice with exercises on Data Types and operators.	
Day 5 Dt. 19/03/2024	Strings in Python, their declaration, accessing and some methods and operations are discussed on this day.	✓ Understanding on the concept of strings in Python ✓ String operations, like indexing, accessing, and character accessing and slicing.	

Day 6 Dt. 20/03/2024	In the end of the first week, we learnt all the Built-in methods of String Manipulations in Python	✓ Learned various built-in methods for string manipulation like capitalize(), count(), endswith(), expandtabs(), etc.	

WEEKLY REPORT

WEEK – 1 (From Dt: 13/03/2024 to Dt: 20/03//2024)

Objective of the Activity Done: Gaining an Awareness and Recap on Python Fundamentals

Detailed Report: We as Interns at Indo-German Institute of Advanced Technologies, on our first week got an exposure on and a recap on fundamentals of Python programming and the following comprehension illustrates the activities that we did as a part of our internship on AI.

Day 1: *13/03/2024*, we were introduced the very fundamental concepts of the computer science these concepts provided all the necessary recap that allows us to embark our work flow in AI. On our first day in internship we learned – "Definition of computer", "ASCII and its significance", "Different types of programming languages", "Different types of languages translators and their role in software execution and development", "Number Systems and their significance in computer working."

Day 2: *14/03/2024*, on this day we were introduced to python that we were meant to use it for AI development. We gained a lot of recap and other informative facts about python like "Python History" – Who invented it? , Why it is named after a deadly snake? , etc., and we also learned the main features/characteristics of python that showcases its influence in development in large domains, and we gained an exposure on programming paradigms like Structured, Functional, Object Oriented Programming methodologies, and how does python supports all the variety programming paradigms. We also learnt the foundational principles of Object Oriented Programming – Inheritance, Abstraction, Encapsulation, and Polymorphism. Thereby, we also allowed to find the advantages and disadvantages of python.

Day 3: *15/03/2024*, as of the third day we were involved into the practical experience in python by covering the basic fundamental concepts like Data Types – "Boolean, Integer, Float, String,…" and the use of type() to find the data type of a value, Variables – "Declaring, Naming Conventions, and Assigning values of diff. data types", and lastly we had gained an understanding on Python's built-in functions, and finally we have covered all the details about keywords and Implicit – Explicit Type casting methodologies.

Day 4: *18/03/2024*, on our fourth day in first week we delved into python foundations by learning more about operators, we have learnt the definition and classifications of operators, we also discussed about the performance of operators on different data types of python. We covered operators like Arithmetic, Logical, Comparison, Assignment, Bitwise operators and many more of python.

Day 5: *19/03/2024*, on this very day we learnt strings in python and covered the concepts of strings and their role in software's and application development. And from the exercises which are assigned to us allowed us to gain hands on experience with strings in python, through this practical exposure we learned and performed various operations on strings like indexing, accessing characters through indexing and formatting using format() method - f '' - %s %d %f for certain methods, slicing and concatenation of strings in python

Day 6: *20/03/2024*, on the end of the weekend we learned the left over concept of strings like its built-in functions in python. We took a very deep-dive in learning strings built-in functions in python, these functions of strings include capitalize(), count(), endswith(), expandtabs(), find(), rfind(), format(), index(), rindex(), isalnum(), isalpha(), isdigit(), isdecimal(), isnumeric(), isidentifier(), islower(), isupper(), join(), strip(), title(), swapcase(), startswith().

WEEKLY REPORT

(CHAT GPT VERSION)

WEEK – 1 (From Dt: 13/03/2024 to Dt: 20/03//2024)

Objective of the Activity Done: Gaining an Awareness and Recap on Python Fundamentals

Detailed Report:

During the inaugural week of our AI internship at the Indo-German Institute of Advanced Technologies, interns were immersed in a thorough overview of Python programming fundamentals.

Day 1: 13/03/2024

The week commenced with an introduction to fundamental computer science concepts, laying the groundwork for our journey into AI. Topics covered included the definition of a computer, the significance of ASCII, various programming language types, the role of translators in software development, and an exploration of number systems.

Day 2: 14/03/2024

We delved into Python, the language central to our AI endeavors. Discussions encompassed its inception, notable features, and versatility across different programming paradigms. Additionally, we explored the principles of Object-Oriented Programming, highlighting concepts such as Inheritance, Abstraction, Encapsulation, and Polymorphism.

Day 3: 15/03/2024

Practical application took precedence as we ventured into hands-on exercises with Python. Essential concepts including Data Types (Boolean, Integer, Float, String), Variable declaration and assignment, and the usage of Python's built-in functions were thoroughly covered. Furthermore, we delved into the nuances of keywords and type casting methodologies.

Day 4: 18/03/2024

Our exploration of Python continued with a focus on operators, elucidating their definitions, classifications, and performance characteristics across diverse data types. Topics spanned Arithmetic, Logical, Comparison, Assignment, and Bitwise operators, providing a comprehensive understanding of Python's operational capabilities.

Day 5: 19/03/2024

A dedicated session on strings in Python equipped us with the knowledge of their pivotal role in software and application development. Through practical exercises, we gained proficiency in string manipulation techniques, including indexing, slicing, concatenation, and formatting.

Day 6: 20/03/2024

The week concluded with a comprehensive study of Python's string built-in functions, empowering us with a diverse toolkit for string manipulation. Topics such as capitalization, counting occurrences, searching within strings, and formatting were extensively covered, enhancing our proficiency in Python's string handling capabilities.