

GUIDANCE POINT:- PUNE'S PREMIER EDUCATION HUB

Welcome to Guidance Point, your ultimate destination for comprehensive education and professional development! At Guidance Point, we believe in empowering individuals to unlock their full potential through accessible and high-quality education. With a vast array of courses covering all domains, from technology to arts, business to sciences, we strive to cater to the diverse learning needs of our users. Whether you're a student looking to enhance your academic performance, a professional aiming to upskill or reskill, or an enthusiast eager to explore new interests, Guidance Point is here to guide you every step of the way. What sets us apart is our commitment to excellence. We meticulously curate our course offerings, partnering with the best institutes and industry experts to ensure that you receive top-notch education that is both relevant and practical. Our platform leverages cutting-edge technology and innovative teaching methodologies to deliver engaging and immersive learning experiences.

BENEFITS:-

1. Comprehensive Course:

Our comprehensive course ensures thorough coverage of essential topics, equipping you with a well-rounded understanding of your subject matter, setting a strong foundation for your future endeavors.

2. Top Institute Partnerships:

Through our partnerships with leading institutes, you gain access to world-class resources, expert guidance, and prestigious

certifications, empowering you to excel in your field and stand out among your peers.

3. Advanced Learning Technology:

Leveraging advanced learning technology, we offer dynamic and interactive learning experiences, incorporating simulations, virtual labs, and multimedia resources to enhance comprehension and retention of complex concepts.

4. Supportive Community:

Join our vibrant and supportive community of learners, mentors, and industry professionals, where you can collaborate, seek advice, and find encouragement, fostering a conducive environment for growth and success.

5. Personalized Learning Paths:

Tailor your learning journey to suit your unique needs and goals with our personalized learning paths, allowing you to progress at your own pace and focus on areas that align with your interests and career aspirations.

6. Quality Assurance Standards:

Rest assured that our courses adhere to rigorous quality assurance standards, ensuring that you receive high-quality instruction, updated curriculum, and valuable resources that meet industry benchmarks and standards.

7. Interactive Learning:

Engage in dynamic and interactive learning experiences through our immersive course content, live sessions, quizzes, and discussions, promoting active participation, collaboration, and deeper understanding of the material.

8. Career Opportunities:

Explore abundant career opportunities and pathways in your chosen field, supported by our comprehensive curriculum, industry partnerships, and career services, empowering you to pursue your dream job and achieve professional success.

SYLLABUS

1: INTRODUCTION TO PYTHON PROGRAMMING

- Overview of Python: History, features, and applications
- Installing Python and setting up the development environment
- Basics of Python syntax: Variables, data types, operators, and expressions
- Control flow statements: If-else, loops, and conditional statements
- Introduction to functions: Defining functions, parameters, return values, and scope

2: DATA STRUCTURES IN PYTHON (LISTS, TUPLES, DICTIONARIES)

- Introduction to data structures: Lists, tuples, dictionaries, sets, and strings
- Working with lists: Indexing, slicing, appending, inserting, and deleting elements
- Understanding tuples: Immutable sequences, packing, and unpacking
- Exploring dictionaries: Key-value pairs, accessing, updating, and deleting items

- Utilizing sets: Unique elements, set operations, and methods

3: CONTROL FLOW AND FUNCTIONS

- Review of control flow statements: Nested if-else, loops (while and for), and break/continue statements
- Functions in-depth: Parameters, arguments, return values, function documentation (docstrings), and function recursion
- Error handling with try-except blocks: Handling exceptions and raising custom exceptions
- Lambda functions and anonymous functions: Syntax, uses, and examples
- List comprehensions: Creating lists using concise syntax and expressions

4: WORKING WITH NUMPY AND PANDAS FOR DATA MANIPULATION

- Introduction to NumPy: Arrays, data types, indexing, slicing, and array operations
- Exploring Pandas: Series, DataFrames, data manipulation, indexing, selection, and filtering
- Data cleaning and preparation: Handling missing values, duplicates, and outliers
- Combining and reshaping data: Concatenation, merging, joining, and reshaping techniques

5: DATA VISUALIZATION WITH MATPLOTLIB AND SEABORN

- Introduction to data visualization: Importance, types of plots, and visualization libraries
- Exploring Matplotlib: Basic plots (line, bar, scatter), customization, subplots, and saving plots
- Understanding Seaborn: Statistical visualization, categorical plots, distribution plots, and regression plots

- Creating advanced visualizations: Heatmaps, pair plots, joint plots, and facet grids

6: INTRODUCTION TO SCIKIT-LEARN FOR MACHINE LEARNING IN PYTHON

- Overview of machine learning: Supervised learning, unsupervised learning, and reinforcement learning
- Introduction to Scikit-learn: Machine learning algorithms, datasets, and tools for model evaluation
- Preprocessing data for machine learning: Scaling, encoding categorical variables, and feature selection
- Model training and evaluation: Splitting data into training and testing sets, training models, and evaluating performance metrics

7: BUILDING BASIC MACHINE LEARNING MODELS WITH PYTHON

- Linear regression: Simple linear regression, multiple linear regression, and model evaluation
- Classification algorithms: Logistic regression, decision trees, and k-nearest neighbors (KNN)
- Clustering algorithms: K-means clustering and hierarchical clustering
- Model validation and tuning: Cross-validation, hyperparameter tuning, and improving model performance