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ROAD MAP TO BE AN EXPERT DATA SCIENCETIST FROM FRESHER

Phase-1	IDE & Server Management	A. Jupyter notebook IDE Usage and Configuration B. PyCharm IDE Usage & Configuration(optional) C. Apache Tomcat Server/ Glassfish /JBoss Server D. MySql installation, Usage & Configuration
Phase-2	Core Python	Introduction, Python History, Why learn Python?, procedure to install python, variable, data types, conditionals, loops, list /tuple comprehension, working on iterators, user-defined functions, built-in functions, lambda functions, generators, file handling operations, exception handling, object oriented programming concepts namely encapsulation, polymorphism, inheritance, overloading, overriding, dealing with date/time objects.
Phase-3	Advanced Python	Decorator functions and decorator class, how to create user defined packages and run module/functions on these packages, regex, numpy, pandas, matplotlib, seaborn, SciPy, etc. packages as required, web scrapping using beautifulsoup and request-html libraries, basic concepts on django(optional).
Phase – 4	Python Data Base Connection	A. Basic SQL B. Integration with python environment C. How to manage transactions
Phase – 5	Introduction to Business Analytics	Operational analytics i.e. monitoring analytics, event driven analytics, real time analytics, tactical analytics, ad-hoc analytics, descriptive analytics, diagnostic analysis, strategic analytics i.e. predictive analytics, prescriptive analytics, cognitive analytics, drill-down analysis, comparative data analysis. An assessment of analytics readiness capabilities, build a transformational analytics like comprehensive review tied to business goals, clear understanding of existing state, properly prioritized implementation phases.
Phase –6	Introduction to Data Science	CS/statistics/linear algebra, correlation matrix, probability and distribution curves, exploratory data analysis and visualization, null and alternative hypothesis, confidence interval and critical region, alpha and beta value, statistical modeling for one t-test, two t-test, paired t-test, anova and chi-square test, non-parametric test.

Phase – 7	Machine Learning	What is machine learning?, applications of machine learning, key elements of machine learning, types of machine learning, explanation on supervised/unsupervised/reinforcement learning, machine learning algorithms namely linear, logistic, random forest, decision-tree, SVM, clustering and principle component factor analysis.
Phase-8	Exploring python	Usages of libraries in machine learning(numpy, pandas, sklearn, SciPy etc.)
Phase- 9	Model Creation	By using real time data build models on a. regression, b. classification
Phase- 10	Model Evaluation	An evaluation metric for machine learning based models
Phase-11	Deep Learning	NLP , text and sentiment analytics, image net evolution, multilayer perceptron(MLP), speech recognition evolution, ANN, CNN, RNN, neural turing machine pytorch, deep learning, transfer learning, graph neural lasso for dynamic network regression(GNL), application like object detection, object segmentation, image caption, action recognition, machine translation, robotics.
Phase- 12	Feature Engineering	Building features for each label while filtering the data used for the feature selected.
Phase- 13	PROJECT	POC with real time data
Phase-14	**Allocation to Client & Customers Live Project**	Resource will be made capable to work independently & with project team. Need to handle client & customer's project confidently. Resources need to work under the guidance of a technical supervisor.