Course Title: Internship Program in   Data Science

Course Duration: 6 Month (6 hours per week)

War-Room:

-Basics of Computer
-Basics of Programing
-Git and Jira
-HTML,CSS,JS

Sprint 1: Introduction to Data Science and Python Basics
- Overview of data science and its applications
- Introduction to Python programming language
- Basic Python syntax, data types, and control structures
- Introduction to Jupyter Notebooks and data manipulation libraries (NumPy, Pandas)
- R-Programming
- Operations with Excel

Sprint 2: Data Visualization and Exploratory Data Analysis (EDA)
- Data visualization principles
- Introduction to Matplotlib and Seaborn for plotting
- Exploratory Data Analysis (EDA) techniques
- Descriptive statistics and data summarization
- PowerBI
- Tableau

Sprint 3: Data Cleaning and Preprocessing
- Handling missing data
- Dealing with outliers
- Data normalization and standardization
- Feature engineering techniques

Sprint 4: Machine Learning Fundamentals
- Overview of machine learning
- Supervised vs. unsupervised learning
- Introduction to scikit-learn library
- Model training, evaluation, and tuning
- Keras and Tensorflow

Sprint 5: Advanced Machine Learning
- Dimensionality reduction techniques (PCA, t-SNE)

- Ensemble methods (Random Forest, Gradient Boosting)
- Introduction to neural networks and deep learning
- Model deployment considerations

Sprint 6: Specialized Topics in Data Science
- Time series analysis
- Natural Language Processing (NLP)
- Big data and distributed computing (Apache Spark)
- Ethical considerations in data science