INTERNSHIP: STUDENT DAILY REPORT

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| Name of the Student | Vivek kumar Shriwas |
| Internship Project Topic | TCS iON RIO-125: Forecasting System - Project Demand of Products at a Retail Outlet Based on Historical Data |
| Name of the Organization | TCS iON |
| Name of the Industry Mentor | Sreekathiayini Ruthraiyah |
| Name of the Institute | Viswakarma University |

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| Date | Day | Hours Spent |
| 20/07/2023 | Day 3 | 5 hours and 50 minutes |
| Description:  **Self-learning Duration : 5hours**  **Activity Report Duration : 50 minutes**  **Activities:**   1. **Time Series Visualization Techniques (2 hours):**    * Explored various visualization libraries in Python for time series data.    * Learned how to create line plots, scatter plots, and bar plots for time series.    * Experimented with customizing plot aesthetics for better data representation. 2. **Studying Seasonal Decomposition (1.5 hours):**    * Delved into additive and multiplicative time series decomposition.    * Understood the concept of trend, seasonality, and residual components.    * Applied seasonal decomposition techniques to example datasets. 3. **Introduction to Exponential Smoothing (1 hour):**    * Learned about exponential smoothing methods for time series forecasting.    * Explored single, double, and triple exponential smoothing techniques.    * Understood the parameters and smoothing factors involved. 4. **Experimenting with Python Libraries (45 minutes):**    * Implemented code snippets using libraries like NumPy and Pandas.    * Practiced data manipulation and transformation tasks.    * Explored ways to handle datetime objects effectively. 5. **Updating Documentation (30 minutes):**    * Added today's activities to the ongoing documentation.    * Incorporated code snippets and images of visualizations for clarity.    * Ensured the documentation is well-organized and easy to follow.   **Challenges:** Encountered challenges in understanding the nuances of seasonal decomposition and selecting appropriate smoothing parameters for exponential smoothing methods. | | |