Session Plan - Introduction to Supervised Learning and Regression

**Learning Objectives:**

* To gain clarity on the fundamental concepts of regression and model evaluation for regression
* To understand the implementation of linear regression and its model evaluation techniques
* To gain insights into the practical challenges involved in solving real-world regression problems

**Session Structure:**

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| **Duration** | **Topic** | **Details** |
| 5 mins | Learning Objectives | * Reflection on the learning objectives of the session and the agenda |
| 40 mins | Conceptual Discussion | * Gauge the understanding of the group through discussion questions and identify the areas where there is a lack of clarity or need for discussion and exchange of thoughts * Discuss the key foundational concepts around the areas identified above |
| 50 mins | Hands-on case study on Regression | * Walkthrough of the case study to problem solve for the objectives mentioned in the problem brief * Demonstration of how to apply regression algorithm for modeling and identify observations & insights * Summarize the key findings from the analysis in the light of the objectives outlined in the problem brief |
| 10 mins | Industry Perspective | * Discuss practical applications, exchange thoughts, and challenges around Regression and Model Evaluation |
| 15 mins | Q&A | * Q&A around the key takeaways from the topics |

**Key points to note:**

* The section for the conceptual discussion is intended to be an interactive one where it is expected that the learners in the group will share the most challenging questions they would want to be discussed in the session.
* In the hands-on section, it is important that the focus stays on the implementation of the regression model and not too much on the EDA section as it covers the concepts which are similar to the concepts discussed previously. We have noticed that if the plan is not followed the session exceeds the time limit.
* It is upon the mentor's discretion to decide how much time to spend on what questions/topics and the goal should be to cover the most fundamental questions first that are in the interest of the whole group.
* Learners are expected to have gone through all the learning material shared in the week.
* Likely, some questions may not get covered in the session due to various reasons and such questions will be answered post the session. It is expected that learners will share such questions via support requests on Olympus.
* Log in to your session 5 minutes before the scheduled start and make sure you are ready with all the material to be used for the session.

Happy Learning!