Dear Candidate,

As part of the recruitment process for the job role “Data Scientist”, we would like to kindly request from you to complete a pre-employment assessment as described below.

**Project Title: Superstore Sales Forecasting.**

# **Introduction**

# Time series forecasting occurs when you make scientific predictions based on historical time stamped data. It involves building models through historical analysis and using them to make observations and drive future strategic decision-making. Sales forecasting helps every business make better business decisions. It helps in overall business planning, budgeting, and risk management. Sales forecasting also helps businesses to estimate their costs and revenue accurately based on which they are able to predict their short-term and long-term performance.

# **Problem Statement**

To predict future sales in order to provide an input into business planning, thus support future business decisions in efficiently allocating resources for future growth, managing the cash flow and enhancing operational processes.

# **Dataset**

This is a transnational dataset, which contains all the transactions occurring between 01/01/2014 and 31/12/2017 for a superstore. The superstore sells a wide variety of merchandise including furniture, office supplies and technology products. The dataset has around 10K rows and 21 columns. You can download the dataset from ([Dataset Link](https://community.tableau.com/s/question/0D54T00000CWeX8SAL/sample-superstore-sales-excelxls)).

# **Requirements**

# In this task, you will **forecast the next three years of furniture sales** (2018-2020).

# You are required to submit the below files:

# **Project Files** Jupyter notebook containing your code.

# **Final Presentation to Business Audience** using a tool of your choosing (e.g. PowerPoint or Tableau) to deliver the predicted figures with consideration of ways on how these results could help the business plan their future growth or operational processes.

# **Technical Report (Fill the Attached Template)** to show the steps of your project including data exploration, data pre-processing, model selection, model development and evaluation.

# **Video Presentation** record a short video to present your work and explain the logic behind your code. The video should clearly show your face and should not exceed 10 minutes. To share the video, upload it as a private video to YouTube and share the link.

# **Expectations**

# **Project Files** the Jupyter notebook is has a clear structure and the code is well commented.

# **Final Presentation to Business Audience** the presentation contains actionable insights that help the business in their decision making process.

# **Technical Report** the report should be filled properly to clarify the steps of your project.

# **Video Presentation** the presented video should cover the steps listed in the technical report in addition to the recommendations presented to business.

# **Submission**

# Submission should be made via email by [25th of November 2021] before [5:00PM]. You may be required to present your work to provide more visibility, if needed.

For any inquiry about the project, please contact **Arub Almuhanna** at: [AAAlmuhana@SaudiPayments.com](mailto:AAAlmuhana@SaudiPayments.com)