

## **AI & Data Engineer – KTP Associate - Combined Facilities Management Ltd (reference 25/112492)**

### **Recruitment Task**

As part of the recruitment process for the AI & Data Engineer – KTP Associate role at Combined Facilities Management, you are required to carry out a small analytics project and submit a recorded presentation. The final stage of the recruitment process for candidates who are successful at this first stage task, will be an interview.

#### **Task:**

You are a Data Engineer in a large telecommunications company. The company has been facing high levels of customer churn. The Board of Directors has asked you to analyse data from the customer relationship management information system to gain actionable insights into the causes of churn, and to predict future churn.

Using the churn.xlsx dataset you should carry out the following tasks. Note that you can undertake any additional analyses you feel may be useful. Tasks should be carried out using a coding language of your choice (for example, R or Python). **The minimum tasks are as follows:**

1. Produce at least three visualisations to identify factors related to churn
2. Train and test a machine learning model to predict churn.

#### **Record a short presentation to:**

1. Explain and justify the technical solution
2. Explain the key practical implications that the Board of Directors should consider to reduce attrition.

The presentation should last for a **maximum of ten minutes** and **submission should be the recorded presentation only** (in PowerPoint format or similar). Further instructions regarding how to submit the presentation are included in your invite email.

The deadline for submission is: **Tuesday 3<sup>rd</sup> June by 5.00 pm.**