### **Guidance to Complete the Test:**

- Read the case & associated questions carefully
- Submission document format: Presentation format (.ppt / keynote / etc). You may choose to use English or Bahasa to describe your answers.
- Average duration to complete the task: 2.5 hours
- Complete the task by submitting the presentation not later than 24 hours after you received the test link from email sent by team@aksel.co.id

# **Analytics, Statistics, & SQL Related Questions**

## A. Problem Solving Skill

Consider, there is a student whose math grades are going down and he wants to improve his grade. Please help this student to solve his problem by applying problem solving procedures (understanding the current situation, identifying the root cause of the problem, and developing an effective action plan). Please use the logic tree for helping you deliver the answer.

#### B. Basic Statistic

Suppose we have these following data about sales performance from 2 different stores within the last 7 days. The investors of these two stores want to know the store performance.

#### Store A

| Date   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--------|---|---|---|---|---|---|---|
| #sales | 2 | 4 | 3 | 4 | 6 | 8 | 3 |

### Store B

| Date   | 1 | 2  | 3 | 4 | 5 | 6  | 7 |
|--------|---|----|---|---|---|----|---|
| #sales | 2 | 50 | 3 | 4 | 6 | 90 | 3 |

Please give the investor insight about the total daily sales for each store? What's the value that is most suitable for describing total daily sales for each store?

## C. Basic SQL

Write a query to get the latest information about room availability for each hospital. Input:

| table_na<br>me:<br>tracking.r   |                          |   |                  |       |   |                          |
|---------------------------------|--------------------------|---|------------------|-------|---|--------------------------|
| hospital_name                   | room_type                | room_spec                               | availabili<br>ty | empty | address   | published_t<br>ime stamp |
| RS Umum<br>Daerah Pidie<br>Jaya | Tempat Tidur<br>Covid 19 | ICU Tekanan Negatif<br>tanpa Ventilator | 4                | 1     | JI.<br>Banda<br>- Aceh<br>KM.<br>158,<br>Meureud<br>u | 19-05-2021<br>17:28:36   |
| RS Umum<br>Daerah Pidie<br>Jaya | Tempat Tidur<br>Covid 19 | ICU Tekanan Negatif<br>tanpa Ventilator | 4                | 3     | JI.<br>Banda<br>- Aceh<br>KM.<br>158,<br>Meureud<br>u | 19-05-2021<br>15:28:36   |
| RS Umum<br>Daerah Pidie<br>Jaya | Tempat Tidur<br>Covid 19 | ICU Tekanan Negatif<br>tanpa Ventilator | 4                | 2     | JI.<br>Banda<br>- Aceh<br>KM.<br>158,<br>Meureud<br>u | 19-05-2021<br>14:28:36   |
| RS Umum<br>Daerah Pidie<br>Jaya | Tempat Tidur<br>Covid 19 | ICU Tekanan Negatif<br>tanpa Ventilator | 4                | 4     | JI.<br>Banda<br>- Aceh<br>KM.<br>158,<br>Meureud<br>u | 19-05-2021<br>13:28:36   |
| RS Umum<br>Daerah<br>Sabang     | Tempat Tidur<br>Covid 19 | Isolasi Tanpa<br>Tekanan Negatif        | 10               | 1     | Jl. Teuku<br>Umar<br>Sabang                           | 18-05-2021<br>20:23:38   |
| RS Umum<br>Daerah<br>Sabang     | Tempat Tidur<br>Covid 19 | Isolasi Tanpa<br>Tekanan Negatif        | 10               | 8     | Jl. Teuku<br>Umar<br>Sabang                           | 18-05-2021<br>17:23:38   |
| RS Umum<br>Daerah<br>Sabang     | Tempat Tidur<br>Covid 19 | Isolasi Tanpa<br>Tekanan Negatif        | 10               | 6     | Jl. Teuku<br>Umar<br>Sabang                           | 18-05-2021<br>15:23:38   |
| RS Umum<br>Daerah<br>Sabang     | Tempat Tidur<br>Covid 19 | Isolasi Tanpa<br>Tekanan Negatif        | 10               | 5     | Jl. Teuku<br>Umar<br>Sabang                           | 18-05-2021<br>10:23:38   |

## \*Highly Confidential

| RS Umum<br>Daerah<br>Sabang | Tempat Tidur<br>Covid 19 | Isolasi Tanpa<br>Tekanan Negatif | 10 | 4 | Jl. Teuku<br>Umar<br>Sabang | 18-05-2021<br>08:23:38 |
|-----------------------------|--------------------------|----------------------------------|----|---|-----------------------------|------------------------|
| RS Umum<br>Daerah<br>Sabang | Tempat Tidur<br>Covid 19 | Isolasi Tanpa<br>Tekanan Negatif | 10 | 3 | Jl. Teuku<br>Umar<br>Sabang | 18-05-2021<br>07:23:38 |

Output:

| hospital_name                   | room_type                | room_spec                               | availabili<br>ty | empty | address   | published_t<br>ime stamp |
|---------------------------------|--------------------------|---|------------------|-------|---|--------------------------|
|                                 |                          |   |                  |       |   |                          |
| RS Umum<br>Daerah Pidie<br>Jaya | Tempat Tidur<br>Covid 19 | ICU Tekanan Negatif<br>tanpa Ventilator | 4                | 1     | JI.<br>Banda<br>- Aceh<br>KM.<br>158,<br>Meureud<br>u | 19-05-2021<br>17:28:36   |
|                                 |                          |   | Т                |       |   |                          |
| RS Umum<br>Daerah<br>Sabang     | Tempat Tidur<br>Covid 19 | Isolasi Tanpa<br>Tekanan Negatif        | 10               | 1     | Jl. Teuku<br>Umar<br>Sabang                           | 18-05-2021<br>20:23:38   |