**Sensor Fusion Algorithm**

Course: SYSC5709F

Team:

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Problem Description:

To compute the temperature value by combining the input from multiple sensors provided at a given time of the day. Here, the sensors are providing individual temperature values for specific times, which can be processed by the sensor fusion algorithm to compute a single correct temperature value for distinct time values. The data is provided by the client in a .csv file, in which 3 parameters are specified, i.e., time, sensor name and temperature measured by the sensor at provided time.

Solution Strategy:

To develop the software, we will follow the iterative software development model. The proposal for designing the above problem contains 2 main stages.

1. In the first stage, we will design the software which analyses the sensor data for one specific time value.
2. After the successful completion of first iteration, we will go for enhancement which will work for different time values.

Assumptions:

1. The sensors for which the input values are not provided for a particular time will be assumed as 0.
2. The algorithm will be computing the fused output for each distinct time provided in the input file, we won’t consider the timing intervals.

Software Design Diagram:

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Description automatically generated