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| **System Requirements Specifications** | | | |
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| **Group# 8** | **Case Study Name: IOT Data-Processor Report** |  |  |
|  | **Case Study Overview: This projects reads IOT data files from different cities. Displays various reports based on date and cities.** |  |  |

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| **S. No.** | **Description** | **Mandatory/Optional** | **Assigned To** |
| **Functional Requirements** | | | |
| CAPG95FR01 | Top level menu and User Interaction. Single OS authenticated user. | Mandatory | Sameeksha Dongre |
| CAPG95FR02 | Data files will consist of Date, Temperature, Rainfall, Humidity, PM2.5, PM10, NO2 recordings from various cities. | Mandatory | Ezaz Sarkar |
| CAPG95FR03 | Graphical Reports will be generated to show parameter changes in a city over a year. | Mandatory | Sameeksha Dongre |
| CAPG95FR04 | Reports like pollution levels or temperature over a year. | Mandatory | Vibhuti Tikariha |
| CAPG95FR05 | Reports to find out sudden change in temperature etc. in a month. ( Drastic climate change) | Mandatory | To be executed in future |

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| **Technical Requirements** | | | |
| CAPG95TR01 | C language | Mandatory | Whole Group |
| CAPG95TR02 | Multiple data file solution. | Mandatory | Ezaz Sarkar |
| CAPG95TR03 | String tokenisation | Mandatory | Renuka Singare |
| CAPG95TR04 | Linked List operations | Mandatory | Sameeksha Dongre |
| CAPG95TR05 | File parsing | Mandatory | Renuka Singare |

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| **Non Functional Requirements** | | | |
| CAPG95NFR01 | Multi-file multi-directory solution is expected. | Mandatory | Ezaz Sarkar |
| CAPG95NFR02 | Modular and maintainable code (comments) and all coding standards should be followed. | Mandatory | Harshita Sharma |
| CAPG95NFR03 | makefile to build application. | Mandatory | Ezaz Sarkar |
| CAPG95NFR04 | Use valgrind tool on application executable to detect memory leak. Final valgrind report to be submitted in “reports” directory. | Mandatory | Vibhuti Tikariha |
| CAPG95NFR05 | Level 0 DFD (context diagram) and Procedural Flow diagram showing core functions logic. | Mandatory | Vibhuti Tikariha |
| CAPG95NFR06 | Plan, Presentation | Mandatory | Harshita Sharma |