



Resync Sr IoT Engineer Technical Task

Please create a Git repository and submit your solution for the following problem statements:

1. Write a program to sort a given string into alphabetic order based on words. User has to use the provided string as an input; if other than that string is received, the program should show an error message. Input string will be " " space separated. Program should sort each word from start to end based on the alphabetic order.

Input constraints:

- **Input String:** print happy against monkey need different effect sheep paper horse parallel journey kind account opinion lock knowledge look weather join market space married who nerve responsible payment again while rhythm prison opposite special why authority rest school operation river year shake than shame push when question road waiting Zoo respect that ring then very theory water tomorrow wheel umbrella the view walk twist unit voice waste together week weight yesterday tooth you young Zebra will yellow brain verse Xray cloud adjustment between where connection branch care needle about with addition cart button control desire Xman cloth balance

2. Design a solution for a system to build an IoT gateway which can collect various types of analog and digital sensor data as well as UART-based sensor data. The IoT gateway should be able to communicate with a cloud platform over Ethernet or Wi-Fi interface. The IoT gateway should be running a Linux distributed system. The IoT gateway should support OTA, self-memory management. The IoT gateway should send health statistical data to the cloud periodically.

[Deliverables]:

- Overall design document which should include, block diagram, hardware and software specifications, project plan and timeline diagram
- Component selection matrix