



威盛_政大AI實習實作課程

威盛vCare商業智能分析Agent

威盛 vCare 商業智能分析Agent - 專案背景說明

威盛現行 Mobile360 vCare 車隊管理平台(簡稱 vCare Platform) 是威盛電子為各合作客戶所開發的車隊管理雲平台服務。

提供:

- 客戶各分部據點車隊, 駕駛, 相關車輛, 終端裝置管理與狀態紀錄
- 威盛, 相關客戶, 安裝維護公司相互間 issue tracking 與客戶關係維護
- 包含各終端裝置, 零組件硬體狀態, 系統軟體版本升級, 錯誤狀況記錄與查詢

威盛 vCare Platform 畫面- 1



- Assets
 - Assets
 - OTA
- Shipments
 - Shipments
 - Shipment Checklist
- Support
 - Health Reports
 - Issues
 - RMA
- Companies
 - Companies
 - Company Profile
- Configurations
 - Part No.
 - Controller Config
 - Radar Config
 - Vehicle Models
- User
 - Accounts

Assets

+ Import

Controller Display Camera Radar

+ New Export

Controller ID, S/N, Model, Vehicle ID, SIM Card

Controller ID	S/N	Label	Controller	SIM Card	OTA Version	Upgrade Queue	Operations	Mark
			M810		1.0.61	OTA v4.4.0.101 0% ↓ (Issued at 2024-08-07 07:08:40)		
			M820Pro					
			M810					
			M820Pro		0.4.9			
			M820Pro					
			M820Pro					
			M820Pro					
			M820Pro					
			M810					
			M820Pro		0.9.1			
			M820Pro		0.4.9			
			M820Pro	890188202411022...	4.5.62.0			
			M820Pro		4.6.11.0			
			M820Pro					
			M820Pro					
			M820Pro					
			M820Pro					
			M820Pro	890188202411022...	4.5.62.0			
			M820Pro					
			M820Pro					

威盛 vCare Platform 畫面- 2



Health Reports

Controller: All Customer: All Site: All 2024-11-01 To 2024-11-30 Controller ID

Time	Controller ID	Controller	System	Storage	Display	Camera	Radars
2024-11-01 00:00:05		M820Pro	✓	✓	✓	✓	✓
2024-11-01 00:00:58		M820Pro	✓	✓	✓	✗	✓
2024-11-01 00:01:37		M820Pro	✓	✓	✓	✓	✓
2024-11-01 00:01:45		M820SE	✓	✓	✓	✓	✓
2024-11-01 00:03:48		M820Pro	✓	✓	✗	✓	✓
2024-11-01 00:03:50		M820Pro	✓	✓	✓	✓	✓
2024-11-01 00:04:14		M820Pro	✓	✓	✓	✗	✓
2024-11-01 00:06:03		M820Pro	✓	✓	✓	✓	✓
2024-11-01 00:08:11		M810	✗	✗	✓	✓	✓
2024-11-01 00:08:16		M820PLUS	✓	✓	✓	✓	✓
2024-11-01 00:08:46		M820Pro	✓	✓	✗	✓	✓
2024-11-01 00:09:27		M820Pro	✓	✓	✓	✓	✓
2024-11-01 00:10:03		M820PLUS	✓	✓	✓	✓	✓
2024-11-01 00:10:40		M820Pro	✓	✓	✓	✓	✓
2024-11-01 00:10:46		M820Pro	✓	✓	✗	✓	✓
2024-11-01 00:11:02		M820Pro	✓	✓	✓	✗	✓
2024-11-01 00:11:23		M820SE	✓	✓	✓	✓	✓
2024-11-01 00:11:31		M820Pro	✓	✓	✗	✓	✓
2024-11-01 00:11:42		M820Pro	✓	✓	✓	✓	✓
2024-11-01 00:17:14		M820Pro	✓	✓	✓	✓	✓
2024-11-01 00:18:07		M820Pro	✓	✓	✓	✗	✓
2024-11-01 00:19:44		M820Pro	✓	✓	✓	✓	✓

Assets

Assets

OTA

Shipments

Shipments

Shipment Checklist

Support

Health Reports

Issues

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Companies

Companies

Company Profile

Configurations

Part No.

Controller Config

Radars Config

Vehicle Models

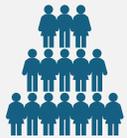
User

Accounts

威盛 vCare 商業智能分析Agent - 專案目標



透過LLM, RAG 與 Agent 相關技術,開發”威盛vCare商業智能分析Agent”,與現行威盛 Mobile360 vCare 車隊管理平台後台資料庫介接,進行相關數據查詢與分析



目標使用者會是威盛客戶,或是威盛各區域業務, PM, FAE 人員



使用者透過自然語言(主要是英文)對話介面

以對話方式提出相關查詢問題敘述.

威盛vCare商業智能分析Agent將分析理解使用者意圖,自動化轉換產生相關SQL查詢指令,查詢vCare車隊管理平台後台資料庫,獲取相關資料

將獲取資料,依照使用者敘述意圖,進一步進行分析處理,完成使用者想要的結果

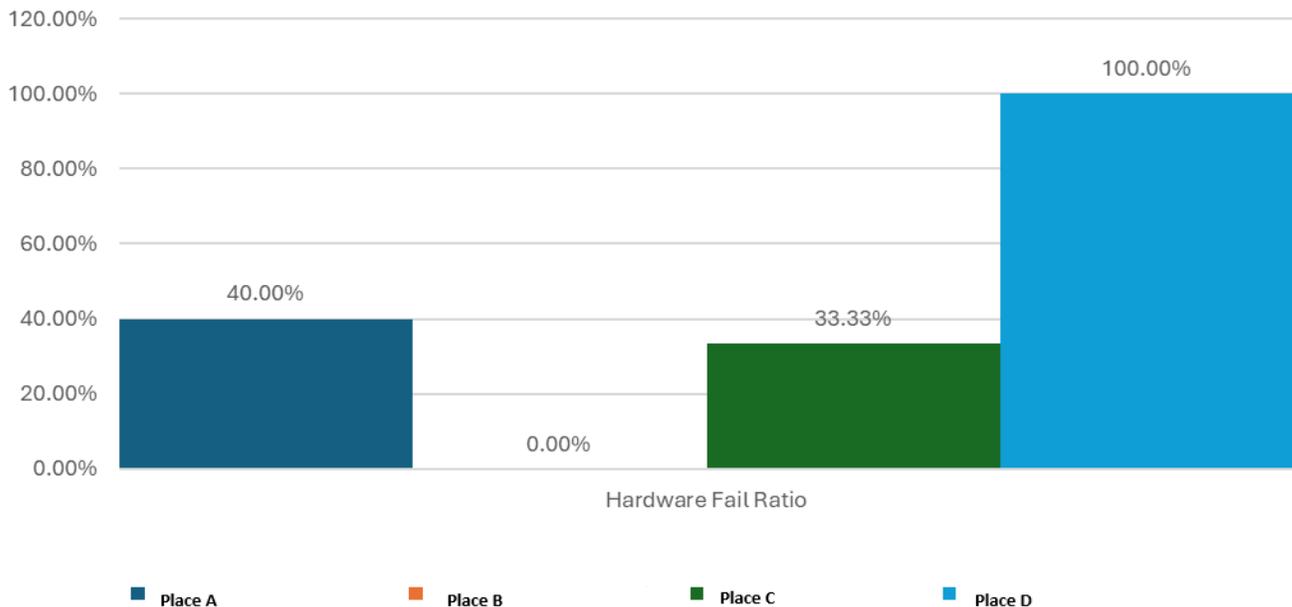
依據使用者敘述,產生對應形式圖表,並將之呈現

威盛vCare商業智能分析Agent



Q: "Evaluate and compare devices Hardware Fail ratio among all sites in XXYYZZ Company during November 2024. Plot the result in bar chart."

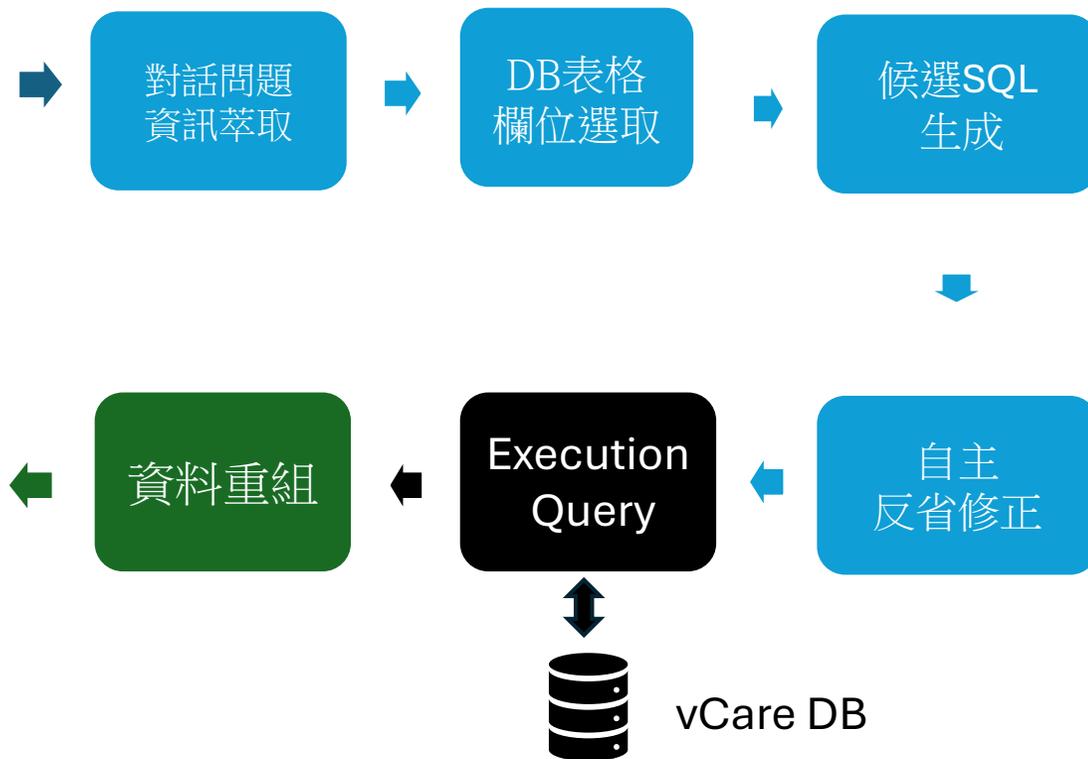
XXYYZZ



威盛vCare商業智能分析Agent可能流程

- device
- customer:XXYYZZ
- Org:
- Duration: 2024/Nov

Table postmap: columns=[ID, VehicleID, ErrorCode]
Table customer, org, Vehicle, trip...



人員技能需求

- Python 程式開發經驗
- MySQL 開發經驗
- LLM模型開發使用經驗, 熟OpenAI Python API library
- Prompt Engineering/In-Context Learning 相關開發經驗. 了解 CoT(chain of thought) 與 Reflexion 方法尤佳
- Langchain / Llamaindex RAG與Agent workflow 開發框架開發經驗
- Gradio / FastAPI 開發經驗

學生參與方式

- 正式成立實習專案, 學生為正式實習
 - 相關學生固定每周在威盛台北辦公室上班20小時
- 人數一組(2~3人)