Database Assignment-Draft

Mi Equipment Sdn Bhd- Health

**Company Introduction**

* Mi Equipment Malaysia, serves as the headquarter of Semiconductor Equipment Business Unit, is strategically located in Bayan Lepas, within the heart of Penang semiconductor industrial area
* In June 2012, Mi Equipment Malaysia was incorporated in Penang, focusing on the R&D and manufacturing of advanced packaging die sorting machine while DPE slowly phased out

**Background of Problem**

* Lack of awareness of Covid-19 heath compliance by all employees and visitors
* Unawareness of health risks in workplace
* Don’t have a suitable health database to check health protocol and awareness in workplace
* Unable to oversee all health problems in workplace

**Research Question**

* How to check employees follow Covid-19 SOP and health compliance?
* **How to bring awareness to all employees & visitors?**
* **What are the health risks in workplace?**
* **How to oversee all health problems at workplace?**

**Objective**

* **To create online platform app for all employees to gain access and enter information on health declaration**
* **Create data mining techniques in system to get users (employees and vendors) preference on health system**

**Limitation**

* **It covers for all Mi Equipment employees and vendors**
* **Only applicable for all smart**

**Literature review**

1. **Health flowchart- Health declaration form**
2. **Data to be collected;**

* **Employees (Mi Equipment) data**
* **Visitor/Vendor (Times, Rowen & Cleaner) data**
* **Top management data**
* **Covid-19 Vaccination (1st dose, 2nd dose and Booster) data**
* **Sanitization(daily/monthly/yearly) data**
* **Employee & Visitor Health declaration data**
* **Medical data**

**Data collection & Data analysis**

* **Work flow and data collection-Health declaration form**

Questionnaire

Fill in detail

Update health status

Login page

Sign out

Recheck health status

Inform user on heakth status

Health assessment by HR

We conduct the surveys/questionnaire based on the case study of the company and below are the survey questions:

* How many employees are aware of the health risks in the workplace? If yes, how?
* How does employees get informed of their health status in workplace?
* What is the majorities of Mi equipment employees and vendors register and attend the 1st dose, 2nd dose and Booster shot appointment?
* Do they record number of employees/vendors are affected by Covid-19(+case and -case), if yes how many?
* How do they identify the cases and close contact (+cases) employees by referring to the employee ID and vendor ID?

The data we have collected through the survey which are the user data, covid-19 vaccination data, health declaration data, health check data and medical data. User data is referred to the employees and vendors information when they created the account on the mobile app for health declaration. Covid-19 vaccination data is referred to users which are able to check their covid-19 vaccination status for 1st dose,2nd dose and Booster dose. Health declaration data is referred to details of health status that users must fill in by weekly before enter the company. Health check data referred to health status details that made by user in the app. The medical data referred when users acquired medical treatment or medicine products in the medical room. With these data collected, we are able to create a well-organized, less redundant, accurate and related database for all users in the company.

**Statistics based on case study**

**Normalization data**

UNF

DDL Statement for UNF

(EMP\_ID, EMP\_FNAME, EMP\_LNAME, EMP\_EMAIL, EMP\_PHO\_NUM, EMP\_IC\_NO, EMP\_GEN, VEN\_ID, VEN\_FNAME, VEN\_LNAME, VEN\_EMAIL, VEN\_PHO\_NUM, VEN\_IC\_NO, VEN\_GEN, SUP\_NAME, SUP\_EMAIL, SUP\_PHO\_NUM, MAN\_ID, MAN\_NAME, MAN\_EMAIL, COMP\_ID, COMP\_NAME, D\_ID, D\_NAME, D\_LOCATION, VACC\_REG, DATE\_FIR\_DOSE, TIME\_STA\_FIR\_DOSE, TIME\_FIN\_FIR\_DOSE, LOCA\_FIR\_DOSE, DATE\_SEC\_DOSE, TIME\_STA\_SEC\_DOSE, TIME\_FIN\_SEC\_DOSE, LOCA\_SEC\_DOSE, DATE\_BOOS\_DOSE, TIME\_STA\_BOOS\_DOSE, TIME\_FIN\_BOOS\_DOSE, LOCA\_BOOS\_DOSE, LOCA\_ID, TYPE\_VACC\_TAK, TIME\_STA\_SANI, TIME\_FIN\_SANI, DATE\_FILL\_IN, TIME\_STA\_FILL, TIME\_FIN\_FILL, MED\_NAME, REASON\_MED\_TAKEN, NO\_MED\_TAKEN)

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| EMP\_ID | EMP\_FNAME | EMP\_LNAME | EMP\_EMAIL | EMP\_PHO\_NUM | EMP\_IC\_NO | EMP\_GEN | VEN\_ID | VEN\_FNAME | VEN\_LNAME |
| MI1200 | Lai Tan | Xiuying | [Lai129@mi-eq.com](mailto:Lai129@mi-eq.com) | 0118881846 | 2289749274 | Female | LK209 | Lei Kan | Huan |
| MI1330 | Terrence | Wong | [Terrwg291@mi-eq. com](mailto:Terrwg291@mi-eq.sdn.bhd.com) | 0144004744 | 6524284772 | Male | PO203 | Gillian | Grant |
| MI9910 | Michael | Chang | [Miccg129@mi-eq.com](mailto:Miccg129@mi-eq.com) | 0186858999 | 2851826490 | Male | IS291 | Kang Wei | Hai |
| MI1479 | Cao Mei | Shunyuan | [Camsyn172@mi-eq.com](mailto:Camsyn172@mi-eq.com) | 0118889057 | 9293812737 | Female | GH029 | Shirley | Burrows |
| MI7849 | Mo Cho | Yaoting | [Mocyo820@mi-eq.com](mailto:Mocyo820@mi-eq.com) | 0184088924 | 1923871720 | Male | JD278 | Zhu Meng | Xiaowen |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| VEN\_EMAIL | VEN\_PHO\_NUM | VEN\_IC\_NO | VEN\_GEN | SUP\_NAME | SUP\_EMAIL | SUP\_PHO\_NUM | MAN\_ID |
| [Leikhn180@rowen.sdn. bhd. com](mailto:Leikhn180@rowen.sdn.%20bhd.%20com) | 0184726936 | 198240240204 | Male | Leo Hayes | [Leoha120@rowen.sdn. bhd.com](mailto:Leoha120@rowen.sdn.%20bhd.com) | 0117554311 | U291 |
| [Gignd291@times.sdn. bhd. com](mailto:Gignd291@times.sdn.%20bhd.%20com) | 0108278815 | 190902147092 | Male | Shi Xiu Mai | [Shmai546@times.sdn. bhd.com](mailto:Shmai546@times.sdn.%20bhd.com) | 0118889759 | Q192 |
| [Kwhai268@rowen.sdn. bhd.com](mailto:Kwhai268@rowen.sdn.%20bhd.com) | 0104656132 | 183030903233 | Male | Chad Hudson | [Chdhu172@rowen.sdn. bhd.com](mailto:Chdhu172@rowen.sdn.%20bhd.com) | 0113851825 | B020 |
| [Shirbu749@times.sdn. bhd.com](mailto:Shirbu749@times.sdn.%20bhd.com) | 0117427753 | 128940400139 | Female | Nathaniel Blanton | [Nabln748@times.sdn. bhd.com](mailto:Nabln748@times.sdn.%20bhd.com) | 0184743039 | I102 |
| [Zhnxi647@rowen.sdn. bhd.com](mailto:Zhnxi647@rowen.sdn.%20bhd.com) | 0103347082 | 102389489983 | Female | Sun Qingge Peng | [Suqui628@rowen.sdn. bhd.com](mailto:Suqui628@rowen.sdn.%20bhd.com) | 0149587634 | S893 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MAN\_NAME | MAN\_EMAIL | EMP\_COMP\_ID | EMP\_COMP\_NAME |  | D\_ID | D\_NAME | D\_LOCATION | VACC\_REG | DATE\_FIR\_DOSE |
| FACILITIES AND EHS | [fcs@mi-eq.com](mailto:fcs@mi-eq.com) | P102 | Mi Equipment(M) Sdn Bhd |  | YS192 | Administration | Level 4 | Yes | 25/06/2021 |
| MARKETING | [mkt@mi-eq.com](mailto:mkt@mi-eq.com) | P102 | Mi Equipment(M) Sdn Bhd |  | PS172 | Production | Level 3 | Yes | 25/06/2021 |
| SALES | [sales@mi-eq.com](mailto:sales@mi-eq.com) | P102 | Mi Equipment(M) Sdn Bhd |  | ID902 | Production | Level 3 | Yes | 25/06/2021 |
| HR | [hr@mi-eq.com](mailto:hr@mi-eq.com) | P102 | Mi Equipment(M) Sdn Bhd |  | LK842 | Administation | Level 2 | Yes | 25/06/2021 |
| ADMINISTARTION | [adm@mi-eq.com](mailto:adm@mi-eq.com) | P102 | Mi Equipment(M) Sdn Bhd |  | DS173 | Marketing and sales | Level 2 | Yes | 25/06/2021 |

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| --- | --- | --- | --- | --- | --- | --- |
| TIME\_STA\_FIR\_DOSE | TIME\_FIN\_FIR\_DOSE | LOCA\_FIR\_DOSE | DATE\_SEC\_DOSE | TIME\_STA\_SEC\_DOSE | TIME\_FIN\_SEC\_DOSE | LOCA\_SEC\_DOSE |
| 9.00am | 9.15am | Bukit Jawi Golf Resort | 16/07/2021 | 10.30am | 10.45am | Bukit Jawi Golf Resort |
| 9.15am | 9.30am | Bukit Jawi Golf Resort | 16/07/2021 | 10.40am | 10.55am | Bukit Jawi Golf Resort |
| 9.30am | 9.45am | Bukit Jawi Golf Resort | 16/07/2021 | 11.15am | 11.30am | Bukit Jawi Golf Resort |
| 10.00am | 10.15am | Bukit Jawi Golf Resort | 16/07/2021 | 2.00pm | 2.15pm | Bukit Jawi Golf Resort |
| 10.15pm | 10.30am | Bukit Jawi Golf Resort | 16/07/2021 | 2.30pm | 2.45pm | Bukit Jawi Golf Resort |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| TIME\_FIN\_BOOS\_DOSE | DATE\_BOOS\_DOSE | TIME\_STA\_BOOS\_DOSE | LOCA\_BOOS\_DOSE | LOCA\_ID | TYPE\_VACC\_TAK | TIME\_STA\_SANI | TIME\_FIN\_SANI |
| 9.45am | 09/10/2021 | 9.30am | Clinic Singapore | P11 | Sinovac | 10.00am | 10.25am |
| 10.00am | 11/10/2021 | 9.45am | Clinic Singapore | P11 | Sinovac | 10.15am | 10.40am |
| 11.15am | 13/10/2021 | 11.00am | Clinic Singapore | P11 | Sinovac | 11.30am | 11.55am |
| 12.15pm | 20/11/2021 | 12.00pm | Clinic Singapore | P11 | Sinovac | 11.45am | 12.10pm |
| 1.00pm | 21/11/2021 | 12.45pm | Clinic Singapore | P11 | Sinovac | 1.00pm | 1.25pm |

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| --- | --- | --- | --- | --- | --- |
| DATE\_FILL\_IN | TIME\_STA\_FILL | TIME\_FIN\_FILL | MED\_NAME | REASON\_MED\_TAKEN | NO\_MED\_TAKEN |
| 14/01/2022 | 8.15am | 8.20am | Paracetamol | Headache | 1 |
| 14/01/2022 | 8.20am | 8.25am | Strepsils max | Sore throat | 2 |
| 16/01/2022 | 8.30am | 8.35am | Strepsils Original | Sore throat | 3 |
| 18/01/2022 | 9.00am | 9.05am | Strepsils Honey Lemon | Sore throat | 2 |
| 20/01/2022 | 9.15am | 9.20am | Cough medicine | Sore throat | 1 |

DDL statement for 1NF

User (VEN\_ID, VEN\_FNAME, VEN\_INAME, VEN\_EMAIL, VEN\_PHO\_NUM, VEN\_IC\_NO, VEN\_PHO\_NUM, VEN\_IC\_NO, VEN\_GEN, COMP\_NAME, COMP\_ID, EMP\_ID, EMP\_FNAME, EMP\_LNAME, EMP\_EMAIL, EMP\_PHO\_NUM, EMP\_IC\_NO, EMP\_GEN, D\_ID, D\_NAME, D\_LOCATION, MAN\_ID, MAN\_NAME, MAN\_EMAIL)

Covid-19 Vaccination (VEN\_ID, EMP\_ID, D\_ID, SUP\_NAME, SUP\_EMAIL, SUP\_PHO\_NUM, VACC\_REG, DATE\_FIR\_DOSE, TIME\_STA\_FIR\_DOSE, TIME\_FIN\_FIR\_DOSE, LOCA\_FIR\_DOSE, DATE\_SEC\_DOSE, TIME\_STA\_SEC\_DOSE, TIME\_FIN\_SEC\_DOSE, LOCA\_SEC\_DOSE, DATE\_BOOS\_DOSE, TIME\_STA\_BOOS\_DOSE, TIME\_FIN\_BOOS\_DOSE, LOCA\_BOOS\_DOSE, TYPE\_VACC\_TAK, TIME\_STA\_SANI, TIME\_FIN\_SANI, DATE\_FILL\_IN, TIME\_STA\_FILL, TIME\_FIN\_FILL, MED\_NAME, REASON\_MED\_TAKEN, NO\_MED\_TAKEN )

User

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| EMP\_ID | EMP\_FNAME | EMP\_LNAME | EMP\_EMAIL | EMP\_PHO\_NUM | EMP\_IC\_NO | EMP\_GEN | VEN\_ID | VEN\_FNAME | VEN\_LNAME | VEN\_EMAIL |
| MI1200 | Lai Tan | Xiuying | [Lai129@mi-eq.com](mailto:Lai129@mi-eq.com) | 0118881846 | 2289749274 | Female | LK209 | Lei Kan | Huan | [Leikhn180@rowen.sdn. bhd. com](mailto:Leikhn180@rowen.sdn.%20bhd.%20com) |
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| MI7849 | Mo Cho | Yaoting | [Mocyo820@mi-eq.com](mailto:Mocyo820@mi-eq.com) | 0184088924 | 1923871720 | Male | JD278 | Zhu Meng | Xiaowen | [Zhnxi647@rowen.sdn. bhd.com](mailto:Zhnxi647@rowen.sdn.%20bhd.com) |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| VEN\_PHO\_NUM | VEN\_IC\_NO | VEN\_GEN | MAN\_ID | MAN\_NAME | MAN\_EMAIL | COMP\_ID | COMP\_NAME | D\_ID | D\_NAME | D\_LOCATION |
| 0184726936 | 198240240204 | Male | U291 | FACILITIES AND EHS | [fcs@mi-eq.com](mailto:fcs@mi-eq.com) | P102 | Mi Equipment(M) Sdn Bhd | YS192 | Administration | Level 4 |
| 0108278815 | 190902147092 | Male | Q192 | MARKETING | [mkt@mi-eq.com](mailto:mkt@mi-eq.com) | A182 | Mi Equipment(M) Sdn Bhd | PS172 | Production | Level 3 |
| 0104656132 | 183030903233 | Male | B020 | SALES | [sales@mi-eq.com](mailto:sales@mi-eq.com) | Y108 | Mi Equipment(M) Sdn Bhd | ID902 | Production | Level 3 |
| 0117427753 | 128940400139 | Female | I102 | HR | [hr@mi-eq.com](mailto:hr@mi-eq.com) | S126 | Mi Equipment(M) Sdn Bhd | LK842 | Administation | Level 2 |
| 0103347082 | 102389489983 | Female | S893 | ADMINISTARTION | [adm@mi-eq.com](mailto:adm@mi-eq.com) | P228 | Mi Equipment(M) Sdn Bhd | DS173 | Marketing and sales | Level 2 |

Covid-19 Vaccination

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| EMP\_ID | VEN\_ID | D\_ID | SUP\_NAME | SUP\_EMAIL | SUP\_PHO\_NUM | VACC\_REG | DATE\_FIR\_DOSE | TIME\_STA\_FIR\_DOSE | TIME\_FIN\_FIR\_DOSE | LOCA\_FIR\_DOSE | DATE\_SEC\_DOSE |
| MI1200 | LK209 | YS192 | Leo Hayes | [Leoha120@rowen.sdn. bhd.com](mailto:Leoha120@rowen.sdn.%20bhd.com) | 0117554311 | Yes | 25/06/2021 | 9.00am | 9.15am | Bukit Jawi Golf Resort | 16/07/2021 |
| MI1330 | PO203 | PS172 | Shi Xiu Mai | [Shmai546@times.sdn. bhd.com](mailto:Shmai546@times.sdn.%20bhd.com) | 0118889759 | Yes | 25/06/2021 | 9.15am | 9.30am | Bukit Jawi Golf Resort | 16/07/2021 |
| MI9910 | IS291 | ID902 | Chad Hudson | [Chdhu172@rowen.sdn. bhd.com](mailto:Chdhu172@rowen.sdn.%20bhd.com) | 0113851825 | Yes | 25/06/2021 | 9.30am | 9.45am | Bukit Jawi Golf Resort | 16/07/2021 |
| MI1479 | GH029 | LK842 | Nathaniel Blanton | [Nabln748@times.sdn. bhd.com](mailto:Nabln748@times.sdn.%20bhd.com) | 0184743039 | Yes | 25/06/2021 | 10.00am | 10.15am | Bukit Jawi Golf Resort | 16/07/2021 |
| MI7849 | JD278 | DS173 | Sun Qingge Peng | [Suqui628@rowen.sdn. bhd.com](mailto:Suqui628@rowen.sdn.%20bhd.com) | 0149587634 | Yes | 25/06/2021 | 10.15pm | 10.30am | Bukit Jawi Golf Resort | 16/07/2021 |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| TIME\_STA\_SEC\_DOSE | TIME\_FIN\_SEC\_DOSE | LOCA\_SEC\_DOSE | TIME\_FIN\_BOOS\_DOSE | DATE\_BOOS\_DOSE | TIME\_STA\_BOOS\_DOSE | LOCA\_BOOS\_DOSE | TYPE\_VACC\_TAK |
| 10.30am | 10.45am | Bukit Jawi Golf Resort | 9.45am | 09/10/2021 | 9.30am | Clinic Singapore | Sinovac |
| 10.40am | 10.55am | Bukit Jawi Golf Resort | 10.00am | 11/10/2021 | 9.45am | Clinic Singapore | Sinovac |
| 11.15am | 11.30am | Bukit Jawi Golf Resort | 11.15am | 13/10/2021 | 11.00am | Clinic Singapore | Sinovac |
| 2.00pm | 2.15pm | Bukit Jawi Golf Resort | 12.15pm | 20/11/2021 | 12.00pm | Clinic Singapore | Sinovac |
| 2.30pm | 2.5pm | Bukit Jawi Golf Resort | 1.00pm | 21/11/2021 | 12.45pm | Clinic Singapore | Sinovac |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| TIME\_STA\_SANI | TIME\_FIN\_SANI | DATE\_FILL\_IN | TIME\_STA\_FILL | TIME\_FIN\_FILL | MED\_NAME | REASON\_MED\_TAKEN | NO\_MED\_TAKEN |
| 10.00am | 10.25am | 14/01/2022 | 8.15am | 8.20am | Paracetamol | Headache | 1 |
| 10.15am | 10.40am | 14/01/2022 | 8.20am | 8.25am | Strepsils max | Sore throat | 2 |
| 11.30am | 11.55am | 16/01/2022 | 8.30am | 8.35am | Strepsils Original | Sore throat | 3 |
| 11.45am | 12.10pm | 18/01/2022 | 9.00am | 9.05am | Strepsils Honey Lemon | Sore throat | 2 |
| 1.00pm | 1.25pm | 20/01/2022 | 9.15am | 9.20am | Cough medicine | Sore throat | 1 |

DDL statement for 2NF

User (VEN\_ID, VEN\_FNAME, VEN\_INAME, VEN\_EMAIL, VEN\_PHO\_NUM, VEN\_IC\_NO, VEN\_PHO\_NUM, VEN\_IC\_NO, VEN\_GEN, COMP\_NAME, COMP\_ID, EMP\_ID, EMP\_FNAME, EMP\_LNAME, EMP\_EMAIL, EMP\_PHO\_NUM, EMP\_IC\_NO, EMP\_GEN, D\_ID, D\_NAME, D\_LOCATION, MAN\_ID, MAN\_NAME, MAN\_EMAIL)

Covid-19 Vaccination (EMP\_ID, VEN\_ID, D\_ID, VACC\_REG, SUP\_NAME, SUP\_EMAIL, SUP\_PHO\_NUM, DATE\_FIR\_DOSE, DATE\_SEC\_DOSE, DATE\_BOOS\_DOSE)

Vaccination Appointment (VEN\_ID, EMP\_ID, DATE\_FIR\_DOSE, TIME\_STA\_FIR\_DOSE, TIME\_FIN\_FIR\_DOSE, LOCA\_FIR\_DOSE, DATE\_SEC\_DOSE, TIME\_STA\_SEC\_DOSE, TIME\_FIN\_SEC\_DOSE, LOCA\_SEC\_DOSE, DATE\_BOOS\_DOSE, TIME\_STA\_BOOS\_DOSE, TIME\_FIN\_BOOS\_DOSE, LOCA\_BOOS\_DOSE, LOC\_ID, TYPE\_VACC\_TAK)

Medical (VEN\_ID, EMP\_ID, D\_ID, TIME\_STA\_SANI, TIME\_FIN\_SANI, DATE\_FILL\_IN, TIME\_STA\_FILL, TIME\_FIN\_FILL, MED\_NAME, REASON\_MED\_TAKEN, NO\_MED\_TAKEN\_

User

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| EMP\_ID | EMP\_FNAME | EMP\_LNAME | EMP\_EMAIL | EMP\_PHO\_NUM | EMP\_IC\_NO | EMP\_GEN | VEN\_ID | VEN\_FNAME | VEN\_LNAME | VEN\_EMAIL |
| MI1200 | Lai Tan | Xiuying | [Lai129@mi-eq.com](mailto:Lai129@mi-eq.com) | 0118881846 | 2289749274 | Female | LK209 | Lei Kan | Huan | [Leikhn180@rowen.sdn. bhd. com](mailto:Leikhn180@rowen.sdn.%20bhd.%20com) |
| MI1330 | Terrence | Wong | [Terrwg291@mi-eq. com](mailto:Terrwg291@mi-eq.sdn.bhd.com) | 0144004744 | 6524284772 | Male | PO203 | Gillian | Grant | [Gignd291@times.sdn. bhd. com](mailto:Gignd291@times.sdn.%20bhd.%20com) |
| MI9910 | Michael | Chang | [Miccg129@mi-eq.com](mailto:Miccg129@mi-eq.com) | 0186858999 | 2851826490 | Male | IS291 | Kang Wei | Hai | [Kwhai268@rowen.sdn. bhd.com](mailto:Kwhai268@rowen.sdn.%20bhd.com) |
| MI1479 | Cao Mei | Shunyuan | [Camsyn172@mi-eq.com](mailto:Camsyn172@mi-eq.com) | 0118889057 | 9293812737 | Female | GH029 | Shirley | Burrows | [Shirbu749@times.sdn. bhd.com](mailto:Shirbu749@times.sdn.%20bhd.com) |
| MI7849 | Mo Cho | Yaoting | [Mocyo820@mi-eq.com](mailto:Mocyo820@mi-eq.com) | 0184088924 | 1923871720 | Male | JD278 | Zhu Meng | Xiaowen | [Zhnxi647@rowen.sdn. bhd.com](mailto:Zhnxi647@rowen.sdn.%20bhd.com) |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| VEN\_PHO\_NUM | VEN\_IC\_NO | VEN\_GEN | MAN\_ID | MAN\_NAME | MAN\_EMAIL | COMP\_ID | COMP\_NAME | D\_ID | D\_NAME | D\_LOCATION |
| 0184726936 | 198240240204 | Male | U291 | FACILITIES AND EHS | [fcs@mi-eq.com](mailto:fcs@mi-eq.com) | P102 | Mi Equipment(M) Sdn Bhd | YS192 | Administration | Level 4 |
| 0108278815 | 190902147092 | Male | Q192 | MARKETING | [mkt@mi-eq.com](mailto:mkt@mi-eq.com) | A182 | Mi Equipment(M) Sdn Bhd | PS172 | Production | Level 3 |
| 0104656132 | 183030903233 | Male | B020 | SALES | [sales@mi-eq.com](mailto:sales@mi-eq.com) | Y108 | Mi Equipment(M) Sdn Bhd | ID902 | Production | Level 3 |
| 0117427753 | 128940400139 | Female | I102 | HR | [hr@mi-eq.com](mailto:hr@mi-eq.com) | S126 | Mi Equipment(M) Sdn Bhd | LK842 | Administation | Level 2 |
| 0103347082 | 102389489983 | Female | S893 | ADMINISTARTION | [adm@mi-eq.com](mailto:adm@mi-eq.com) | P228 | Mi Equipment(M) Sdn Bhd | DS173 | Marketing and sales | Level 2 |

Covid-19 Vaccination

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| EMP\_ID | VEN\_ID | D\_ID | SUP\_ NAME | SUP\_ EMAIL | SUP\_PHO\_NUM | VACC\_ REG | DATE\_FIR\_DOSE | DATE\_SEC\_DOSE | DATE\_BOOS\_DOSE |
| MI1200 | LK209 | YS192 | Leo Hayes | [Leoha120@rowen.sdn. bhd.com](mailto:Leoha120@rowen.sdn.%20bhd.com) | 0117554311 | Yes | 25/06/2021 | 16/07/2021 | 09/10/2021 |
| MI1330 | PO203 | PS172 | Shi Xiu Mai | [Shmai546@times.sdn. bhd.com](mailto:Shmai546@times.sdn.%20bhd.com) | 0118889759 | Yes | 25/06/2021 | 16/07/2021 | 11/10/2021 |
| MI9910 | IS291 | ID902 | Chad Hudson | [Chdhu172@rowen.sdn. bhd.com](mailto:Chdhu172@rowen.sdn.%20bhd.com) | 0113851825 | Yes | 25/06/2021 | 16/07/2021 | 13/10/2021 |
| MI1479 | GH029 | LK842 | Nathaniel Blanton | [Nabln748@times.sdn. bhd.com](mailto:Nabln748@times.sdn.%20bhd.com) | 0184743039 | Yes | 25/06/2021 | 16/07/2021 | 20/11/2021 |
| MI7849 | JD278 | DS173 | Sun Qingge Peng | [Suqui628@rowen.sdn. bhd.com](mailto:Suqui628@rowen.sdn.%20bhd.com) | 0149587634 | Yes | 25/06/2021 | 16/07/2021 | 21/11/2021 |

Vaccination Appointment

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| EMP\_ID | VEN\_ID | DATE\_FIR\_DOSE | TIME\_STA\_FIR\_DOSE | TIME\_FIN\_FIR\_DOSE | LOCA\_FIR\_DOSE | DATE\_SEC\_DOSE | TIME\_STA\_SEC\_DOSE | TIME\_FIN\_SEC\_DOSE | LOCA\_SEC\_DOSE | TIME\_FIN\_BOOS\_DOSE |
| MI1200 | LK209 | 25/06/2021 | 9.00am | 9.15am | Bukit Jawi Golf Resort | 16/07/2021 | 10.30am | 10.45am | Bukit Jawi Golf Resort | 9.45am |
| MI1330 | PO203 | 25/06/2021 | 9.15am | 9.30am | Bukit Jawi Golf Resort | 16/07/2021 | 10.40am | 10.55am | Bukit Jawi Golf Resort | 10.00am |
| MI9910 | IS291 | 25/06/2021 | 9.30am | 9.45am | Bukit Jawi Golf Resort | 16/07/2021 | 11.15am | 11.30am | Bukit Jawi Golf Resort | 11.15am |
| MI1479 | GH029 | 25/06/2021 | 10.00am | 10.15am | Bukit Jawi Golf Resort | 16/07/2021 | 2.00pm | 2.15pm | Bukit Jawi Golf Resort | 12.15pm |
| MI7849 | JD278 | 25/06/2021 | 10.15pm | 10.30am | Bukit Jawi Golf Resort | 16/07/2021 | 2.30pm | 2.45pm | Bukit Jawi Golf Resort | 1.00pm |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| DATE\_BOOS\_DOSE | TIME\_STA\_BOOS\_DOSE | LOCA\_BOOS\_DOSE | LOCA\_ID | TYPE\_VACC\_TAK |
| 09/10/2021 | 9.30am | Clinic Singapore | P11 | Sinovac |
| 11/10/2021 | 9.45am | Clinic Singapore | P12 | Sinovac |
| 13/10/2021 | 11.00am | Clinic Singapore | P13 | Sinovac |
| 20/11/2021 | 12.00pm | Clinic Singapore | P14 | Sinovac |
| 21/11/2021 | 12.45pm | Clinic Singapore | P15 | Sinovac |

Medical

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| EMP\_ID | VEN\_ID | D\_ID | TIME\_STA\_SANI | TIME\_FIN\_SANI | DATE\_FILL\_IN | TIME\_STA\_FILL | TIME\_FIN\_FILL | MED\_NAME | REASON\_MED\_TAKEN | NO\_MED\_TAKEN |
| MI1200 | LK209 | YS192 | 10.00am | 10.25am | 14/01/2022 | 8.15am | 8.20am | Paracetamol | Headache | 1 |
| MI1330 | PO203 | PS172 | 10.15am | 10.40am | 14/01/2022 | 8.20am | 8.25am | Strepsils max | Sore throat | 2 |
| MI9910 | IS291 | ID902 | 11.30am | 11.55am | 16/01/2022 | 8.30am | 8.35am | Strepsils Original | Sore throat | 3 |
| MI1479 | GH029 | LK842 | 11.45am | 12.10pm | 18/01/2022 | 9.00am | 9.05am | Strepsils Honey Lemon | Sore throat | 2 |
| MI7849 | JD278 | DS173 | 1.00pm | 1.25pm | 20/01/2022 | 9.15am | 9.20am | Cough medicine | Sore throat | 1 |

DDL statement for 3NF

User (VEN\_ID, VEN\_FNAME, VEN\_INAME, VEN\_EMAIL, VEN\_PHO\_NUM, VEN\_IC\_NO, VEN\_PHO\_NUM, VEN\_IC\_NO, VEN\_GEN, COMP\_NAME, COMP\_ID, EMP\_ID, EMP\_FNAME, EMP\_LNAME, EMP\_EMAIL, EMP\_PHO\_NUM, EMP\_IC\_NO, EMP\_GEN, D\_ID, D\_NAME, D\_LOCATION, MAN\_ID, MAN\_NAME, MAN\_EMAIL)

Covid-19 Vaccination (EMP\_ID, VEN\_ID, D\_ID, VACC\_REG, SUP\_NAME, SUP\_EMAIL, SUP\_PHO\_NUM, DATE\_FIR\_DOSE, DATE\_SEC\_DOSE, DATE\_BOOS\_DOSE)

Vaccination Appointment (VEN\_ID, EMP\_ID, DATE\_FIR\_DOSE, TIME\_STA\_FIR\_DOSE, TIME\_FIN\_FIR\_DOSE, LOCA\_FIR\_DOSE, DATE\_SEC\_DOSE, TIME\_STA\_SEC\_DOSE, TIME\_FIN\_SEC\_DOSE, LOCA\_SEC\_DOSE, DATE\_BOOS\_DOSE, TIME\_STA\_BOOS\_DOSE, TIME\_FIN\_BOOS\_DOSE, LOCA\_BOOS\_DOSE, LOC\_ID, TYPE\_VACC\_TAK)

Medical (VEN\_ID, EMP\_ID, D\_ID, TIME\_STA\_SANI, TIME\_FIN\_SANI, DATE\_FILL\_IN, TIME\_STA\_FILL, TIME\_FIN\_FILL, MED\_NAME, REASON\_MED\_TAKEN, NO\_MED\_TAKEN)

Location of Covid vaccine (LOC\_ID, LOCA\_FIR\_DOSE, LOCA\_SEC\_DOSE, LOCA\_BOOS\_DOSE)

Health declaration (EMP\_ID, VEN\_ID, D\_ID, COMP\_ID, COMP\_NAME, DATE\_FILL\_IN, TIME\_STA\_FILL, TIME\_FIN\_FILL)

User

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| EMP\_ID | EMP\_FNAME | EMP\_LNAME | EMP\_EMAIL | EMP\_PHO\_NUM | EMP\_IC\_NO | EMP\_GEN | VEN\_ID | VEN\_FNAME | VEN\_LNAME | VEN\_EMAIL |
| MI1200 | Lai Tan | Xiuying | [Lai129@mi-eq.com](mailto:Lai129@mi-eq.com) | 0118881846 | 2289749274 | Female | LK209 | Lei Kan | Huan | [Leikhn180@rowen.sdn. bhd. com](mailto:Leikhn180@rowen.sdn.%20bhd.%20com) |
| MI1330 | Terrence | Wong | [Terrwg291@mi-eq. com](mailto:Terrwg291@mi-eq.sdn.bhd.com) | 0144004744 | 6524284772 | Male | PO203 | Gillian | Grant | [Gignd291@times.sdn. bhd. com](mailto:Gignd291@times.sdn.%20bhd.%20com) |
| MI9910 | Michael | Chang | [Miccg129@mi-eq.com](mailto:Miccg129@mi-eq.com) | 0186858999 | 2851826490 | Male | IS291 | Kang Wei | Hai | [Kwhai268@rowen.sdn. bhd.com](mailto:Kwhai268@rowen.sdn.%20bhd.com) |
| MI1479 | Cao Mei | Shunyuan | [Camsyn172@mi-eq.com](mailto:Camsyn172@mi-eq.com) | 0118889057 | 9293812737 | Female | GH029 | Shirley | Burrows | [Shirbu749@times.sdn. bhd.com](mailto:Shirbu749@times.sdn.%20bhd.com) |
| MI7849 | Mo Cho | Yaoting | [Mocyo820@mi-eq.com](mailto:Mocyo820@mi-eq.com) | 0184088924 | 1923871720 | Male | JD278 | Zhu Meng | Xiaowen | [Zhnxi647@rowen.sdn. bhd.com](mailto:Zhnxi647@rowen.sdn.%20bhd.com) |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| VEN\_PHO\_NUM | VEN\_IC\_NO | VEN\_GEN | MAN\_ID | MAN\_NAME | MAN\_EMAIL | COMP\_ID | COMP\_NAME | D\_ID | D\_NAME | D\_LOCATION |
| 0184726936 | 198240240204 | Male | U291 | FACILITIES AND EHS | [fcs@mi-eq.com](mailto:fcs@mi-eq.com) | P102 | Mi Equipment(M) Sdn Bhd | YS192 | Administration | Level 4 |
| 0108278815 | 190902147092 | Male | Q192 | MARKETING | [mkt@mi-eq.com](mailto:mkt@mi-eq.com) | A182 | Mi Equipment(M) Sdn Bhd | PS172 | Production | Level 3 |
| 0104656132 | 183030903233 | Male | B020 | SALES | [sales@mi-eq.com](mailto:sales@mi-eq.com) | Y108 | Mi Equipment(M) Sdn Bhd | ID902 | Production | Level 3 |
| 0117427753 | 128940400139 | Female | I102 | HR | [hr@mi-eq.com](mailto:hr@mi-eq.com) | S126 | Mi Equipment(M) Sdn Bhd | LK842 | Administation | Level 2 |
| 0103347082 | 102389489983 | Female | S893 | ADMINISTARTION | [adm@mi-eq.com](mailto:adm@mi-eq.com) | P228 | Mi Equipment(M) Sdn Bhd | DS173 | Marketing and sales | Level 2 |

Covid-19 Vaccination

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| EMP\_ID | VEN\_ID | D\_ID | SUP\_ NAME | SUP\_ EMAIL | SUP\_PHO\_NUM | VACC\_ REG | DATE\_FIR\_DOSE | DATE\_SEC\_DOSE | DATE\_BOOS\_DOSE |
| MI1200 | LK209 | YS192 | Leo Hayes | [Leoha120@rowen.sdn. bhd.com](mailto:Leoha120@rowen.sdn.%20bhd.com) | 0117554311 | Yes | 25/06/2021 | 16/07/2021 | 09/10/2021 |
| MI1330 | PO203 | PS172 | Shi Xiu Mai | [Shmai546@times.sdn. bhd.com](mailto:Shmai546@times.sdn.%20bhd.com) | 0118889759 | Yes | 25/06/2021 | 16/07/2021 | 11/10/2021 |
| MI9910 | IS291 | ID902 | Chad Hudson | [Chdhu172@rowen.sdn. bhd.com](mailto:Chdhu172@rowen.sdn.%20bhd.com) | 0113851825 | Yes | 25/06/2021 | 16/07/2021 | 13/10/2021 |
| MI1479 | GH029 | LK842 | Nathaniel Blanton | [Nabln748@times.sdn. bhd.com](mailto:Nabln748@times.sdn.%20bhd.com) | 0184743039 | Yes | 25/06/2021 | 16/07/2021 | 20/11/2021 |
| MI7849 | JD278 | DS173 | Sun Qingge Peng | [Suqui628@rowen.sdn. bhd.com](mailto:Suqui628@rowen.sdn.%20bhd.com) | 0149587634 | Yes | 25/06/2021 | 16/07/2021 | 21/11/2021 |

Vaccination Appointment

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| EMP\_ID | VEN\_ID | DATE\_FIR\_DOSE | TIME\_STA\_FIR\_DOSE | TIME\_FIN\_FIR\_DOSE | LOCA\_FIR\_DOSE | DATE\_SEC\_DOSE | TIME\_STA\_SEC\_DOSE | TIME\_FIN\_SEC\_DOSE | LOCA\_SEC\_DOSE |
| MI1200 | LK209 | 25/06/2021 | 9.00am | 9.15am | Bukit Jawi Golf Resort | 16/07/2021 | 10.30am | 10.45am | Bukit Jawi Golf Resort |
| MI1330 | PO203 | 25/06/2021 | 9.15am | 9.30am | Bukit Jawi Golf Resort | 16/07/2021 | 10.40am | 10.55am | Bukit Jawi Golf Resort |
| MI9910 | IS291 | 25/06/2021 | 9.30am | 9.45am | Bukit Jawi Golf Resort | 16/07/2021 | 11.15am | 11.30am | Bukit Jawi Golf Resort |
| MI1479 | GH029 | 25/06/2021 | 10.00am | 10.15am | Bukit Jawi Golf Resort | 16/07/2021 | 2.00pm | 2.15pm | Bukit Jawi Golf Resort |
| MI7849 | JD278 | 25/06/2021 | 10.15pm | 10.30am | Bukit Jawi Golf Resort | 16/07/2021 | 2.30pm | 2.45pm | Bukit Jawi Golf Resort |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| DATE\_BOOS\_DOSE | TIME\_STA\_BOOS\_DOSE | TIME\_FIN\_BOOS\_DOSE | LOCA\_BOOS\_DOSE | LOCA\_ID | TYPE\_VACC\_TAK |
| 09/10/2021 | 9.30am | 9.45am | Clinic Singapore | P11 | Sinovac |
| 11/10/2021 | 9.45am | 10.00am | Clinic Joe Fernandes | P12 | Sinovac |
| 13/10/2021 | 11.00am | 11.15am | Clinic Singapore | P13 | Sinovac |
| 20/11/2021 | 12.00pm | 12.15pm | Clinic Singapore | P14 | Sinovac |
| 21/11/2021 | 12.45pm | 1.00pm | Clinic Joe Fernandes | P15 | Sinovac |

Medical

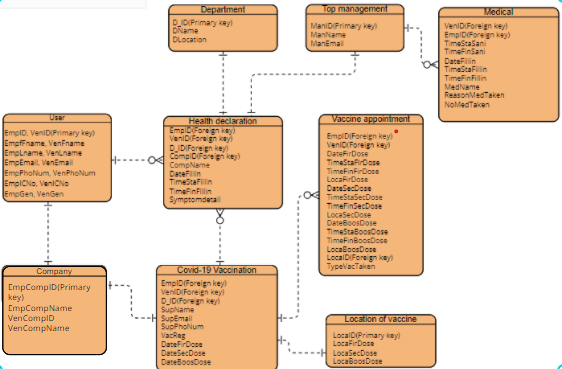
|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| EMP\_ID | VEN\_ID | D\_ID | TIME\_STA\_SANI | TIME\_FIN\_SANI | DATE\_FILL\_IN | TIME\_STA\_FILL | TIME\_FIN\_FILL | MED\_NAME | REASON\_MED\_TAKEN | NO\_MED\_TAKEN |
| MI1200 | LK209 | YS192 | 10.00am | 10.25am | 14/01/2022 | 8.15am | 8.20am | Paracetamol | Headache | 1 |
| MI1330 | PO203 | PS172 | 10.15am | 10.40am | 14/01/2022 | 8.20am | 8.25am | Strepsils max | Sore throat | 2 |
| MI9910 | IS291 | ID902 | 11.30am | 11.55am | 16/01/2022 | 8.30am | 8.35am | Strepsils Original | Sore throat | 3 |
| MI1479 | GH029 | LK842 | 11.45am | 12.10pm | 18/01/2022 | 9.00am | 9.05am | Strepsils Honey Lemon | Sore throat | 2 |
| MI7849 | JD278 | DS173 | 1.00pm | 1.25pm | 20/01/2022 | 9.15am | 9.20am | Cough medicine | Sore throat | 1 |

Location of Covid vaccine

|  |  |  |  |
| --- | --- | --- | --- |
| LOCA\_ID | LOCA\_FIR\_DOSE | LOCA\_SEC\_DOSE | LOCA\_BOOS\_DOSE |
| P11 | Bukit Jawi Golf Resort | Bukit Jawi Golf Resort | Clinic Singapore |
| P12 | Bukit Jawi Golf Resort | Bukit Jawi Golf Resort | Clinic Joe Fernandes |
| P13 | Bukit Jawi Golf Resort | Bukit Jawi Golf Resort | Clinic Singapore |
| P14 | Bukit Jawi Golf Resort | Bukit Jawi Golf Resort | Clinic Singapore |
| P15 | Bukit Jawi Golf Resort | Bukit Jawi Golf Resort | Clinic Joe Fernandes |

Health declaration

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| EMP\_ID | VEN\_ID | D\_ID | EMP\_COMP\_ID | EMP\_COMP\_NAME | VEN\_COMP\_ID | VEN\_COMP\_NAME | DATE\_FILL\_IN | TIME\_STA\_FILL | TIME\_FIN\_FILL | SYMPTOM\_STATUS |
| MI1200 | LK209 | YS192 | P102 | Mi Equipment(M) Sdn Bhd | I302 | Rowen Autobotics Sdn.Bhd | 14/01/2022 | 8.15am | 8.20am | Normal |
| MI1330 | PO203 | PS172 | P103 | Mi Technovation Sdn Bhd | Y201 | Times Autobotics Sdn bhd | 14/01/2022 | 8.20am | 8.25am | Fever |
| MI9910 | IS291 | ID902 | P104 | Mi Equipment(M) Sdn Bhd | I302 | Rowen Autobotics Sdn.Bhd | 16/01/2022 | 8.30am | 8.35am | Normal |
| MI1479 | GH029 | LK842 | P105 | Mi Technovation Sdn Bhd | Y201 | Times Autobotics Sdn bhd | 18/01/2022 | 9.00am | 9.05am | Sore throat |
| J5MI7849 | JD278 | DS173 | P106 | Mi Equipment(M) Sdn Bhd | I302 | Rowen Autobotics Sdn.Bhd | 20/01/2022 | 9.15am | 9.20am | Normal |

**Entity to make ER diagram-Health**

1. **Employees**
2. **Vendors**
3. **Top management**
4. **Department/Facility**
5. **Company**
6. **Health declaration**
7. **Covid-19 test kit assessment**
8. **Covid-19 vaccination**
9. **Vaccine appointment**
10. **Location of vaccine**
11. **Medical record**
12. **Health management**

**Data Validation**

**Admin**

**Checking each table by query**

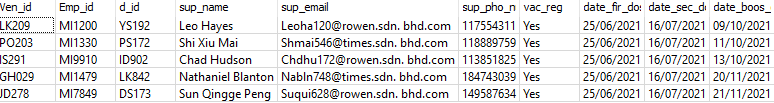
SELECT \*]

FROM company;

****

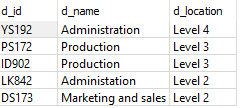
SELECT \*

FROM Covid\_Vaccination;

****

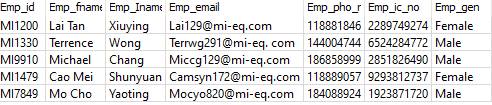
SELECT \*

FROM department;

****

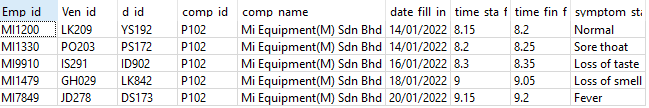
SELECT \*

FROM employees;



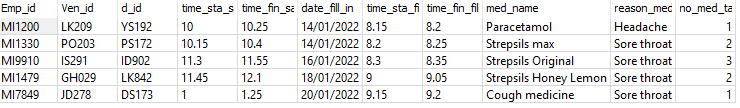
SELECT \*

FROM Health\_declaration;



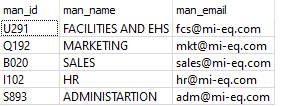
SELECT \*

FROM Medical;



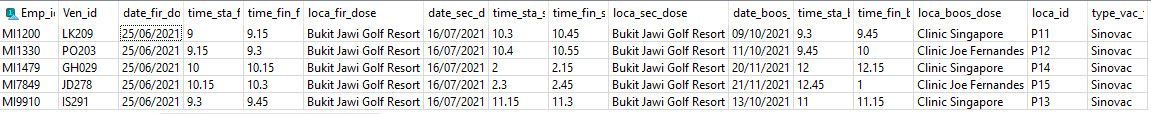
SELECT \*

FROM top\_management;



SELECT \*

FROM Vaccine\_appointment;



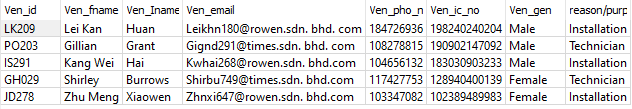
SELECT \*

FROM Vaccine\_location;



SELECT \*

FROM vendor;

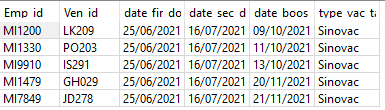


List out the employee ID and vendor ID with date of vaccine appointment and vaccine taken

SELECT e.Emp\_id,v.Ven\_id,Va.date\_fir\_dose,Va.date\_sec\_dose,Va.date\_boos\_dose,Va.type\_vac\_taken

FROM employees e,vendor v,Vaccine\_appointment Va

WHERE e.Emp\_id= Va.Emp\_id AND v.Ven\_id=Va.Ven\_id;

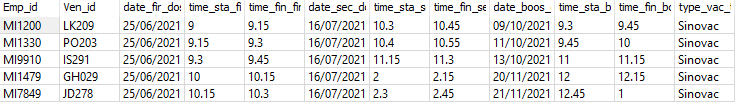


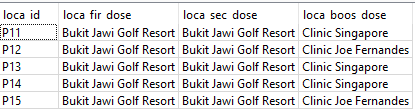
Check time, date of vaccination and type of vaccine taken by each employees & vendor

SELECT Emp\_id,Ven\_id,date\_fir\_dose,time\_sta\_fir\_dose,time\_fin\_fir\_dose,date\_sec\_dose,time\_sta\_sec\_dose,time\_fin\_sec\_dose,date\_boos\_dose,time\_sta\_boos\_dose,time\_fin\_boos\_dose,type\_vac\_taken

FROM Vaccine\_appointment

WHERE type\_vac\_taken='Sinovac';

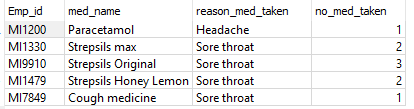


List out the location ID with name of location for vaccination

SELECT vl.loca\_id,va.loca\_fir\_dose,va.loca\_sec\_dose,va.loca\_boos\_dose

FROM Vaccine\_location vl, Vaccine\_appointment va

WHERE vl.loca\_id=va.loca\_id;

Find out the amount of medicine employees had taken

SELECT e.Emp\_id,m.med\_name,m.reason\_med\_taken,m.no\_med\_taken

FROM employees e, Medical m

WHERE e.Emp\_id= m.Emp\_id;

Find out which user(employees and vendor) had taken the same vaccine on 16/07/2021

SELECT e.Emp\_fname,e.Emp\_lname,v.Ven\_fname,v.Ven\_lname,cv.date\_sec\_dose  
FROM employees e,vendor v,Covid\_Vaccination cv  
WHERE e.Emp\_id=cv.Emp\_id AND v.Ven\_id=cv.Ven\_id AND cv.date\_sec\_dose='16/07/2021';



List the vendor and employee id with their own respective name & company

SELECT e.Emp\_id,e.Emp\_fname,e.Emp\_lname,v.Ven\_id,v.Ven\_fname,v.Ven\_lname,c.Emp\_comp\_name,vc.Ven\_comp\_name  
FROM employees e,vendor v, company c,Ven\_company vc

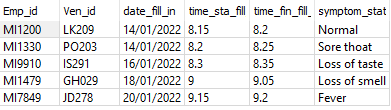
WHERE e.Emp\_comp\_id=c.Emp\_comp\_id AND v.Ven\_comp\_id=vc.Ven\_comp\_id  
GROUP BY e.Emp\_id;



Check health declaration by what date and time the user (employee and vendor) fills in and symptom

SELECT Emp\_id,Ven\_id,date\_fill\_in,time\_sta\_fill\_in,time\_fin\_fill\_in,symptom\_status

FROM Health\_declaration;



Data analysis

To achieve the objective of the company, we implement the data mining to the database to find the potential customer and helping the company to make decision making to their market strategy

import pandas as pd

import sqlite3

import numpy as np

import matplotlib.pyplot as plt

df=pd.read\_csv(r'C:\Users\USER\Desktop\Health-Mi Equipment\Healthrisk.csv')

df.plot(kind='bar',x='Health risks',y='Total Respondent')

df=pd.read\_csv(r'C:\Users\USER\Desktop\Health-Mi Equipment\Vaccinecomplete.csv')

df.plot(kind='bar',x='UserName',y='No of employee vaccine')

df=pd.read\_csv(r'C:\Users\USER\Desktop\Health-Mi Equipment\Vaccineregistry.csv')

df['Percentage employee attend'].value\_counts().plot(kind='pie',figsize=(6,6))

