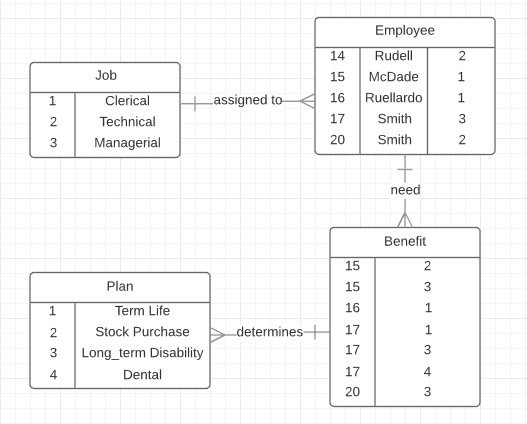
Problem 1:

|  |  |  |
| --- | --- | --- |
| TABLE | PRIMARY KEY | FOREIGN KEY(S) |
| EMPLOYEE | EMP\_CODE | EMP\_NAME; JOB\_CODE |
| BENEFIT | EMP\_CODE | PLAN\_CODE |
| JOB | JOB\_CODE | JOB\_DESCRIPTION |
| PLAN | PLAN\_CODE | PLAN\_ DESCRIPTION |

Problem 2:



Problem 3:

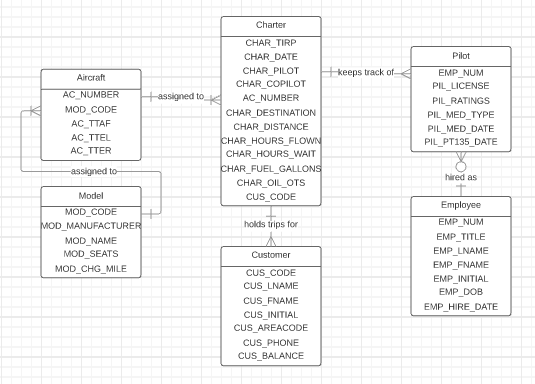
|  |  |  |
| --- | --- | --- |
| TABLE | ENTITY INTEGRITY | EXPLANATION |
| EMPLOYEE | N | Every employee has a single job/JOB\_CODE and EMP\_CODE, however having the same name occur with different information makes it difficult to discern a single employee. |
| BENEFIT | Y | Already noted by the (supposed) relationship, the employees have multiple plans and the table clearly reflects it. |
| JOB | Y | Every JOB\_CODE only associated with one JOB\_DESRIPTION. |
| PLAN | Y | Every PLAN\_CODE has a single PLAN\_DESCRIPTION associated with it. |

Problem 4:

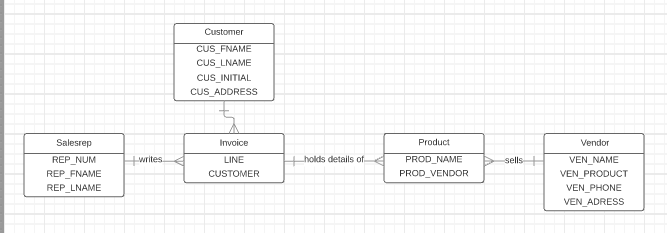
|  |  |  |
| --- | --- | --- |
| TABLE | REFENTIAL INTEGRITY | EXPLANATION |
| EMPLOYEE | Y | Every employee has a single job/JOB\_CODE and EMP\_CODE. |
| BENEFIT | N | Because of the (supposed) relationship, it is impossible to reference a single plan for an employee without another table for that employee. |
| JOB | Y | Every JOB\_CODE only associated with one JOB\_DESRIPTION. |
| PLAN | Y | Every PLAN\_CODE has a single PLAN\_DESCRIPTION associated with it. |

Problem 5: ( “;” = AND, “/” = OR)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Table | Primary Key | Superkey | Canidate Key | Foreign Key | Secondary Key |
| CHARTER | CHAR\_TRIP | CHAR\_TRIP | CHAR\_TRIP | AC\_NUMBER; CUS\_CODE | N/A |
| AIRCRAFT | AC\_NUMBER | AC\_NUMBER; MOD\_CODE | MOD\_CODE | MOD\_CODE | MOD\_CODE |
| MODEL | MOD\_CODE | MOD\_CODE; MOD\_NAME | MOD\_NAME / MOD\_CODE | N/A | MOD\_NAME |
| PILOT | EMP\_NUM | EMP\_NUM | EMP\_NUM | N/A | N/A |
| EMPLOYEE | EMP\_NUM | EMP\_NUM; EMP\_TITLE; EMP\_FNAME; EMP\_LNAME; EMP\_INITIAL | EMP\_NUM / EMP\_TITLE; EMP\_FNAME; EMP\_LNAME; EMP\_INITIAL | N/A | EMP\_TITLE; EMP\_FNAME; EMP\_LNAME; EMP\_INITIAL |
| CUSTOMER | CUS\_CODE | CUS\_CODE; CUS\_LNAME; CUS\_FNAME; CUS\_INITIAL; CUS\_PHONE | CUS\_CODE/ CUS\_LNAME; CUS\_FNAME; CUS\_INITIAL; CUS\_PHONE | N/A | CUS\_LNAME; CUS\_FNAME; CUS\_INITIAL; CUS\_PHONE |

Problem 6: 

Problem 7:



Problem 8:

