

Database II

**Group-17**

Group Members

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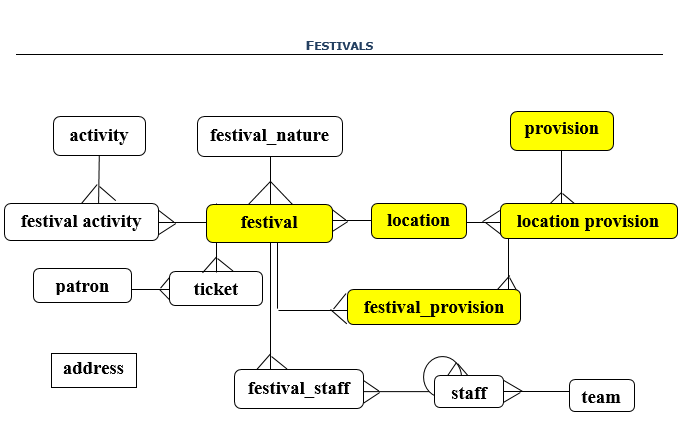
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**1) Introduction**:

Basically, the assessment was based on group work. The group was divided into four members and the task was related to the festivals. As we were provided with the schema and by choosing the different tables from the schema we created a new schema for the assessment. The main aim was to use object types, tables, procedures, triggers, functions, cursors and packages.

Everyone in the group have contributed equally to complete the assessment in given time.

1. **Old Schema**



**3) Selected Tables**

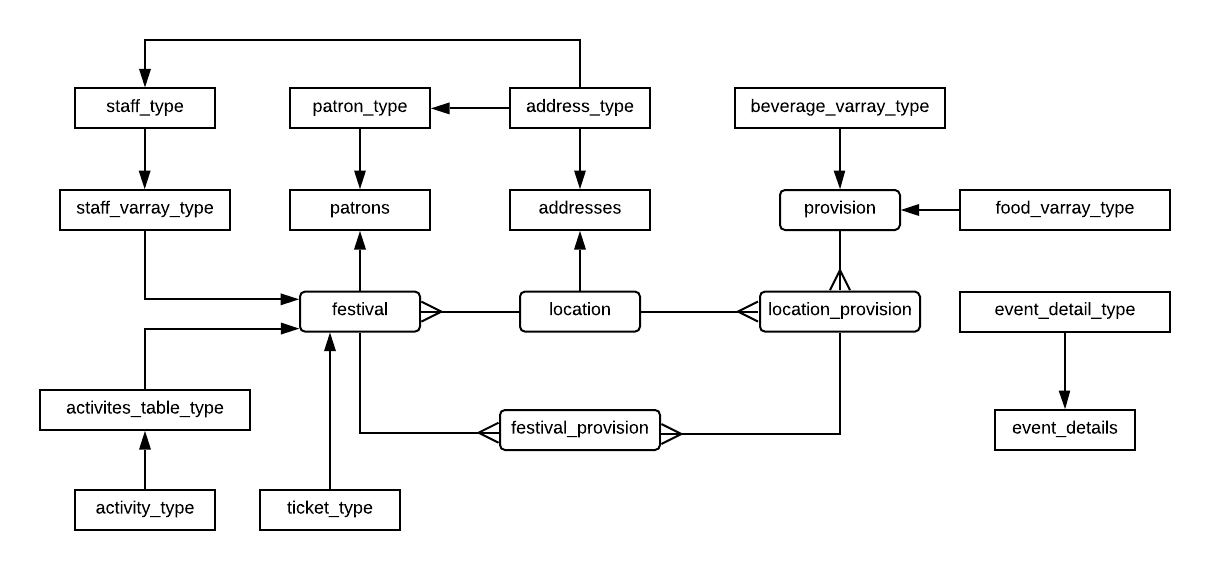
festivals

locations

provisions

location\_provisions

festival\_provisions



**4) New Schema**

**5) Table Specifications**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Tables | attribute | Data type | | Constraints | Defaults |
| addresses | address\_type: | | | | |
|  | city | VARCHAR2(30) | |  |  |
|  | street | VARCHAR2(30) | |  |  |
|  | country | VARCHAR2(30) | |  |  |
|  |  | | | | |
| PATRONS | patron\_type: | | | | |
|  | patron\_reg\_number | NUMBER(15) | |  |  |
|  | patron\_name | VARCHAR2(30) | |  |  |
|  | patron\_address | ADDRESS\_TYPE | |  |  |
|  | patron\_contact | VARCHAR2(15) | | *UNIQUE* |  |
|  | patron\_email | VARCHAR2(30) | | *UNIQUE* |  |
|  | | | | | |
|  | | | | | |
| EVENT\_DETAILS | event\_detail\_type: | | | | |
|  | username | VARCHAR2(30) | |  |  |
|  | event\_type | VARCHAR2(30) | |  |  |
|  | login\_date | DATE | |  |  |
|  | login\_time | VARCHAR2(20) | |  |  |
|  | logout\_date | DATE | |  |  |
|  | logout\_time | VARCHAR2(20) | |  |  |
|  |  |  | |  |  |
| STAFF\_VARRAY\_TYPE | staff\_type: | | | | |
|  | firstname | VARCHAR2(30) | |  |  |
|  | surname | VARCHAR2(30) | |  |  |
|  | role | VARCHAR2(30) | |  |  |
|  | salary | NUMBER(8,2) | |  |  |
|  | email | VARCHAR2(30) | |  |  |
|  | contact | VARCHAR2(15) | |  |  |
|  | address | address\_type | |  |  |
|  |  | |  |  |  |
| TICKET\_VARRAY\_TYPE | ticket\_type: | | | | |
|  | ticket\_price | | NUMBER(6,2) |  |  |
|  | ticket\_class | | VARCHAR2(30) |  |  |
|  | ticket\_validity | | NUMBER(6) |  |  |
|  |  | |  |  |  |
| ACTIVITIES\_TABLE\_TYPE | activity\_type |  | |  |  |
|  | games | VARCHAR2(30) | |  |  |
|  | entertainment | VARCHAR2(30) | |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ­ | attribute | Data type | Constraints | | Default | Sequence |
| FESVITALS | festival\_id | NUMBER(6) | pk\_festivals | |  | seq\_festivals |
|  | festival\_name | VARCHAR2(30) | NOT NULL, UPPER | |  |  |
|  | festival\_nature | VARCHAR2(30) | NOT NULL, UPPER | |  |  |
|  | staff | staff\_varray\_type |  | |  |  |
|  | activities | activity\_table\_type |  | |  |  |
|  | patrons | ref of patron\_type |  | |  |  |
|  | ticket\_details | ticket\_varray\_type |  | |  |  |
|  | \*location\_id | NUMBER(6) | *fk\_f\_locations NOT NULL* | |  |  |
|  |  |  |  | |  |  |
| LOCATIONS | location\_id | NUMBER(6) | pk\_locations | |  | seq\_locations |
|  | address | address\_type |  | |  |  |
|  | venue | VARCHAR2(30) | UPPER | | ‘GROUND’ |  |
|  | venue\_detail | CLOB |  | |  |  |
|  | image | BLOB |  | |  |  |
|  |  |  |  | |  |  |
| PROVISIONS | provision\_id | NUMBER(6) | pk\_provisions | |  | seq\_provision |
|  | foods | food\_varray\_type |  | |  |  |
|  | beverages | beverage\_varray\_type |  | |  |  |
|  |  |  |  | |  |  |
| LOCATION\_PROVISIONS | \*location\_id | NUMBER(6) | *pk\_location\_provisions* | *fk\_lp\_locations NOT NULL* |  |  |
|  | \*provision\_id | NUMBER(6) |  | *fk\_lp\_provisions NOT NULL* |  |  |
|  |  |  |  |  |  |  |
| FESTIVAL\_PROVISIONS | \*festival\_id | NUMBER(6) | *pk\_festival\_provisions* | *fk\_fp\_festivals NOT NULL* |  |  |
|  | \*location\_id | NUMBER(6) | *fk\_fp\_location\_provisions NOT NULL* |  |  |
|  | \*provision\_id | NUMBER(6) |  |  |

**6) User Types**

address\_type

ticket\_type

ticket\_varray\_type

staff\_type

staff\_varray\_type

patron\_type

food\_varray\_type

event\_detail\_type

beverage\_varray\_type

activity\_type

activity\_table\_type

**7) Object Types**

address\_type

patron\_type

staff\_type

activity\_type

ticket\_type

**8) Object Tables**

addresses

patrons

event\_details

**9) Varray type**

staff\_varray\_type

beverage\_varray\_type

food\_varray\_type

ticket\_varray\_type

**10) Nested Table**

activity\_table\_type

**11) Relational Tables**

festivals

locations

provisions

location\_provisions

festival\_provisions

**12) Primary keys**

pk\_festivals

pk\_locations

pk\_provisions

pk\_location\_provisions

pk\_festival\_provisions

**13) Foreign keys**

fk\_f\_locations

fk\_lp\_locations

fk\_lp\_provisions

fk\_fp\_festivals

fk\_fp\_locations\_provisions

**14) Sequences**

seq\_festivals

seq\_locations

seq\_provisions

**15) Check Constraints**

ck\_l\_venue

ck\_f\_festival\_nature

ck\_f\_festival\_name

**16) Unique**

uk\_p\_contact

uk\_p\_email

**17) Procedures**

proc\_imp\_cursor

proc\_exp\_cursor

proc\_staff\_email\_cursor

proc\_ticket\_discount

proc\_calculate\_yearly\_wage

proc\_insert\_patrons

proc\_insert\_locations

proc\_insert\_addresses

proc\_username

proc\_return\_id

proc\_test\_calculate\_salary

**18) Functions**

func\_username

func\_return\_id

func\_calculate\_total\_salary

**19) Triggers**

trig\_email\_patrons

trig\_patrons\_reg\_number

trig\_db\_logout

trig\_db\_login

trig\_contact

trig\_patrons

**20) Cursors and packages**

proc\_staff\_email\_cursor

prc\_exp\_cursor

proc\_imp\_cursor

pkg\_add\_provisions