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## Question 2 (10 marks)

Consider the following SQL statements to create a new data type and table:

```
create type Gender as enum ('male', 'female', 'none of your
business');

create table People (
    id    integer primary key,
    name  text not null,
    sex   Gender -- may be null
);
```

Show the tuples that would be inserted into the system catalog tables

- when the Gender type is created
- when the People table is created

Since there are many catalog tables and many columns in most of the catalog tables, you only need to give values for the tables and columns shown below:

```
pg_attribute(oid, attrid, attrname, attrtypeid, attrlen, attrnum,
attnotnull)
pg_class(oid, relname, relkind, relnatts, relhaskey, relhasindex)
pg_enum(enumtypeid, enumlabel)
pg_index(indexrelid, indrelid, indnatts, indisunique, indisprimary)
pg_type(oid, typename, typtype, typisdefined, typrelid)
```

Some tuples will contain foreign keys that are OIDs in other tables; indicate OID values by distinct upper-case letters (e.g. A, B, etc.) You may assume that the OID values for the builtin data types integer and text are defined as follows:

```
X = select oid from pg_type where typename='int4'
Y = select oid from pg_type where typename='text'
```

Note that some of the field values in some tuples may be NULL.

The PostgreSQL catalog tables are described in detail in [Chapter 48](#) of the PostgreSQL documentation. Notes: variable-length types and composite types have `typlen = -1`; enumerated types have `typlen = 4`; boolean values may be written as `true` and `false`; primary key indexes are always called `table_pkey`; 0 is *not* the same value as NULL.

### Instructions:

- Type your answer to this question into the file called `q2.txt`
- Submit via: **give cs9315 sample\_q2 q2.txt**  
or via: Webcms3 > exams > Sample Exam > Submit Q2 > Make Submission

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