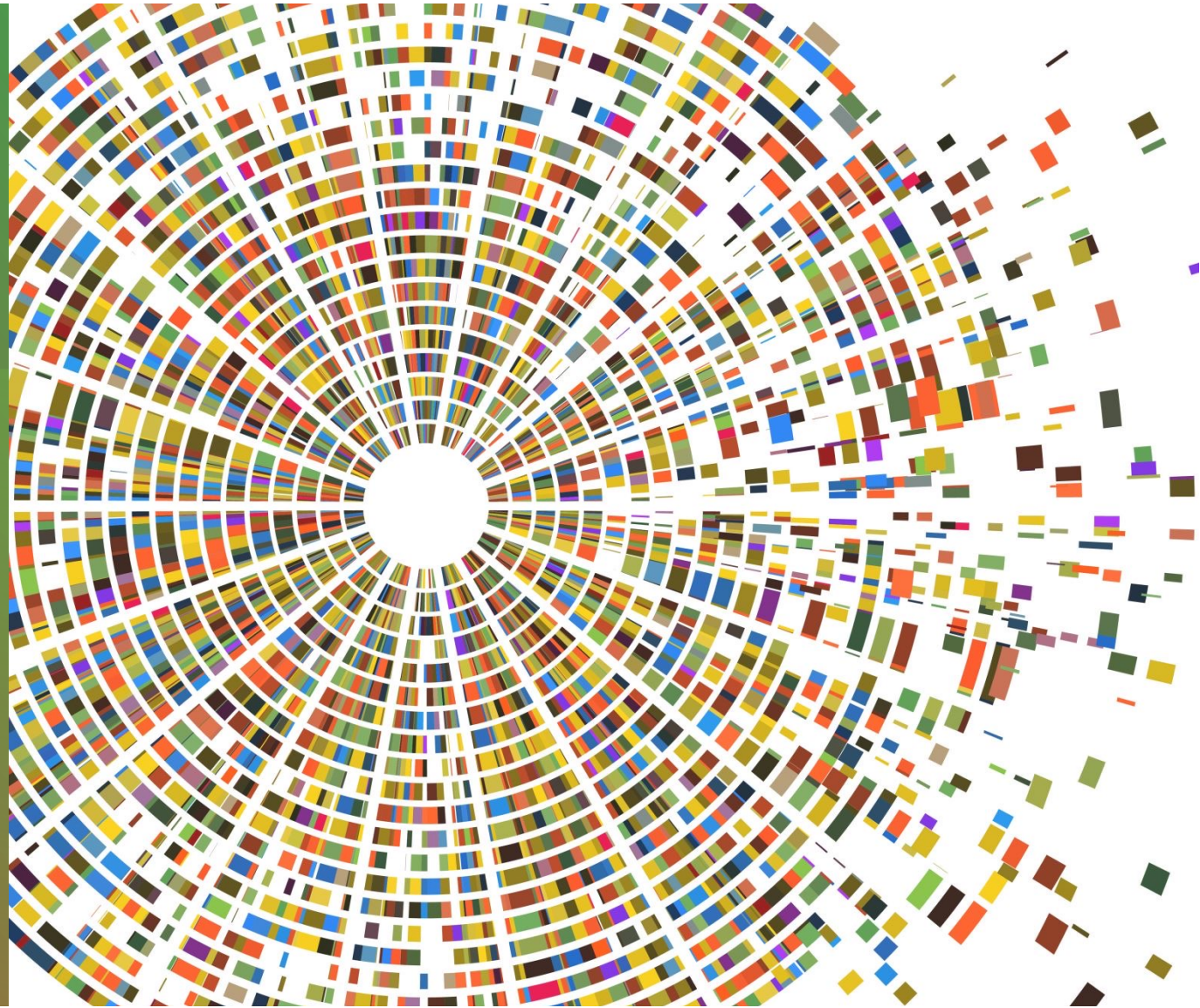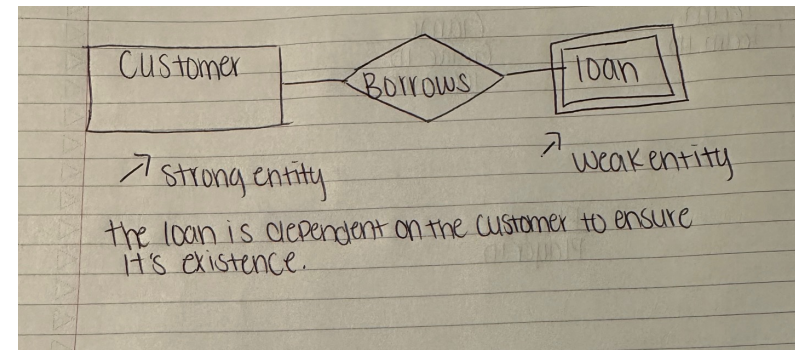CHIZOMA OPARAJI

EPPS 6354.001

INFORMATION
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4

Q1. EXPLAIN THE DIFFERENCE BETWEEN A WEAK AND A STRONG ENTITY SET. USE AN EXAMPLE OTHER THAN THE ONE IN CHAPTER 6 TO ILLUSTRATE. (CONSULT CH. 6, 6.5.3)

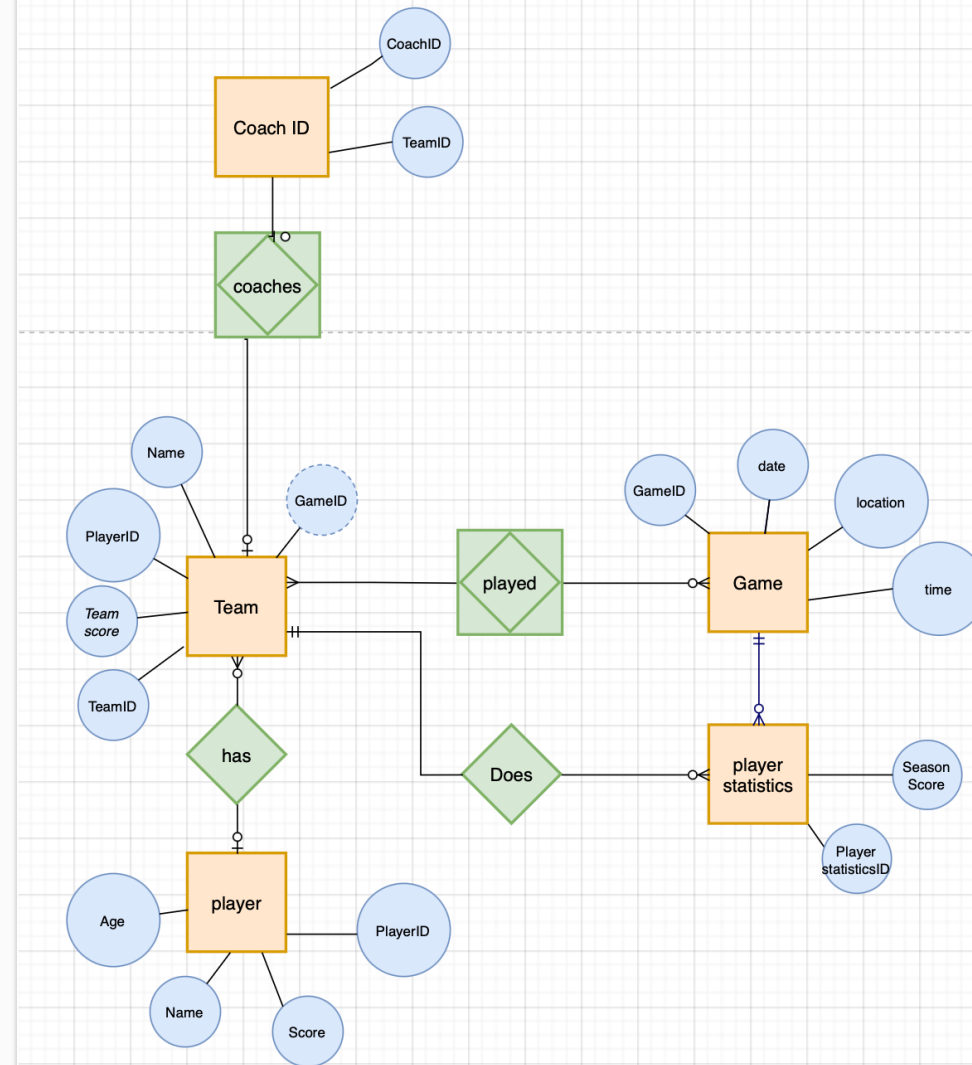A weak entity set depends on the existence of anther entity set

A strong entity set is not dependent on any other entity. It has its own primary keys

Q2. DESIGN AN E-R DIAGRAM FOR KEEPING TRACK OF THE SCORING STATISTICS OF YOUR FAVORITE SPORTS TEAM.

YOU SHOULD STORE THE MATCHES PLAYED, THE SCORES IN EACH MATCH, THE PLAYERS IN EACH MATCH, AND INDIVIDUAL PLAYER SCORING STATISTICS FOR EACH MATCH.

SUMMARY STATISTICS SHOULD BE MODELED AS DERIVED ATTRIBUTES WITH AN EXPLANATION AS TO HOW THEY ARE COMPUTED.

Q3A. EXPLAIN WHY APPENDING NATURAL JOIN *SECTION* IN THE FROM CLAUSE WOULD NOT CHANGE THE RESULT. (CONSULT CH. 4, 4.1.1)

Enter SQL commands here

```
1  select course_id, semester, year, sec_id, avg (tot_cred) from takes natural join student
2  where year = 2017
3  group by course_id, semester, year, sec_id
4  having count (ID) >= 2;
5
```

Execute   Save the db   Load an SQLite database file: [Choose File] no file selected

course_id	semester	year	sec_id	avg (tot_cred)
CS-101	Fall	2017	1	65
CS-190	Spring	2017	2	43
CS-347	Fall	2017	1	67

Enter SQL commands here

```
1  select course_id, semester, year, sec_id from takes natural join section
2  where year = 2017
3  group by course_id, semester, year, sec_id
4  having count (ID) >= 2;
5
```

Execute   Save the db   Load an SQLite database file: [Choose File] no file selected

course_id	semester	year	sec_id
CS-101	Fall	2017	1
CS-190	Spring	2017	2
CS-347	Fall	2017	1

Natural join only considers pairs of tuples with the same value on attributes that appear in the schemas in both relations, Since both share same common attribute, the results won't change

Q3B. WRITE AN SQL QUERY USING THE UNIVERSITY SCHEMA TO FIND THE ID OF EACH STUDENT WHO HAS NEVER TAKEN A COURSE AT THE UNIVERSITY. DO THIS USING NO SUBQUERIES AND NO SET OPERATIONS (USE AN OUTER JOIN). (CONSULT CH. 4, 4.1.3)

Enter SQL commands here

```
1  select S.ID
2  From student S Left Outer Join takes T on S.ID = T.ID
3  Where T.ID is null;
4
```

| Execute | Save the db | Load an SQLite database file: | Choose File | no file selected |

ID
70557

Original work by kripken (sql.js). C to Javascript compiler by kripken (emscripten). Project now maintained by lovasoa