

Quiz 3

Score (out of 10)**Taken by:**

Name

Student ID**Graded by:**

Name

Student ID

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- You will have **15** minutes to finish this quiz.
 - Please don't start the quiz until the instructor directs you to do so. On the flip side, when the time is up, please stop writing when the instructor directs you to do so.
 - We will discuss the answers right after the quiz. You will grade another student's quiz. For this, please switch quizzes with another student.
 - When you get your quiz back, make sure that the "Graded by" fields are filled out.
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Take AB&C's ER diagram on the last page. You may detach that page if you want to.

In case an entity set's or an attribute's name contain a space, remove that space for your SQL statements. Our goal is a relational schema based on (parts of) that diagram.

The IMEI (15 decimal digits: 14 digits plus a check digit) is a number that identifies a mobile device and includes information on the origin, model, and serial number of the device.

1. What is a good data type for storing the IMEI of a device and why? Options are INT, VARCHAR, CHAR – 1 point
2. Where would you store the relationship set between customer and phone line and why? – 1 point

3. Give the SQL query for creating the Phone Line table. Do not enforce referential integrity yet. – 2
4. What part has to be added to or modified in your CREATE statement for PhoneLine so that a phone line gets deleted when the customer record is deleted? – 1 point
5. You are asked to also include the date when a phone line was opened (“Date Opened”) into the Phone Line table. Write the SQL query for modifying the existing table. – 1 point
6. Write a good SQL statement to insert a new device model (Noika’s 3310, which runs BrickOS) into the database. – 1 point
7. Write an SQL query that returns all phone models made by Nokia. – 1 point
8. Connect these options for referential integrity (ON DELETE _____) with their meaning – 2 points

(1) NO ACTION	__ Set foreign key value to NULL
(2) DELETE	__ Not a valid option in SQL
(3) SET NULL	__ Reject update / delete
(4) CASCADE	__ Delete tuples that refer to deleted tuple

