Class and Object

Create a Java class named `Employee` with private attributes for name, employee ID, and salary. Implement multiple constructors to initialize these attributes using constructor overloading. Provide a sample code snippet demonstrating the creation of `Employee` objects using different constructors.

Design a Java class called `Rectangle` with private attributes for length and width. Implement constructor overloading to initialize the rectangle's dimensions either by providing both length and width or by a single parameter to create a square. Provide an example of how to use these constructors to create `Rectangle` objects.

Develop a Java class named `BankAccount` with private attributes for account number, account holder name, and balance. Implement constructors to allow the creation of a bank account with just an account number, a combination of account number and holder name, and a full initialization with all attributes. Showcase the usage of these constructors in a concise code example.

Create a Java class called `Car` with private attributes for make, model, and year. Implement a default constructor and an overloaded constructor that takes all three attributes as parameters. Demonstrate how to use these constructors to instantiate `Car` objects with different initialization scenarios.

Define a Java class named `Student` with private attributes for student ID, name, and age. Implement multiple constructors to allow the creation of a student with only an ID, with an ID and name, and with all three attributes. Provide a clear example illustrating the usage of these constructors to create instances of the `Student` class.