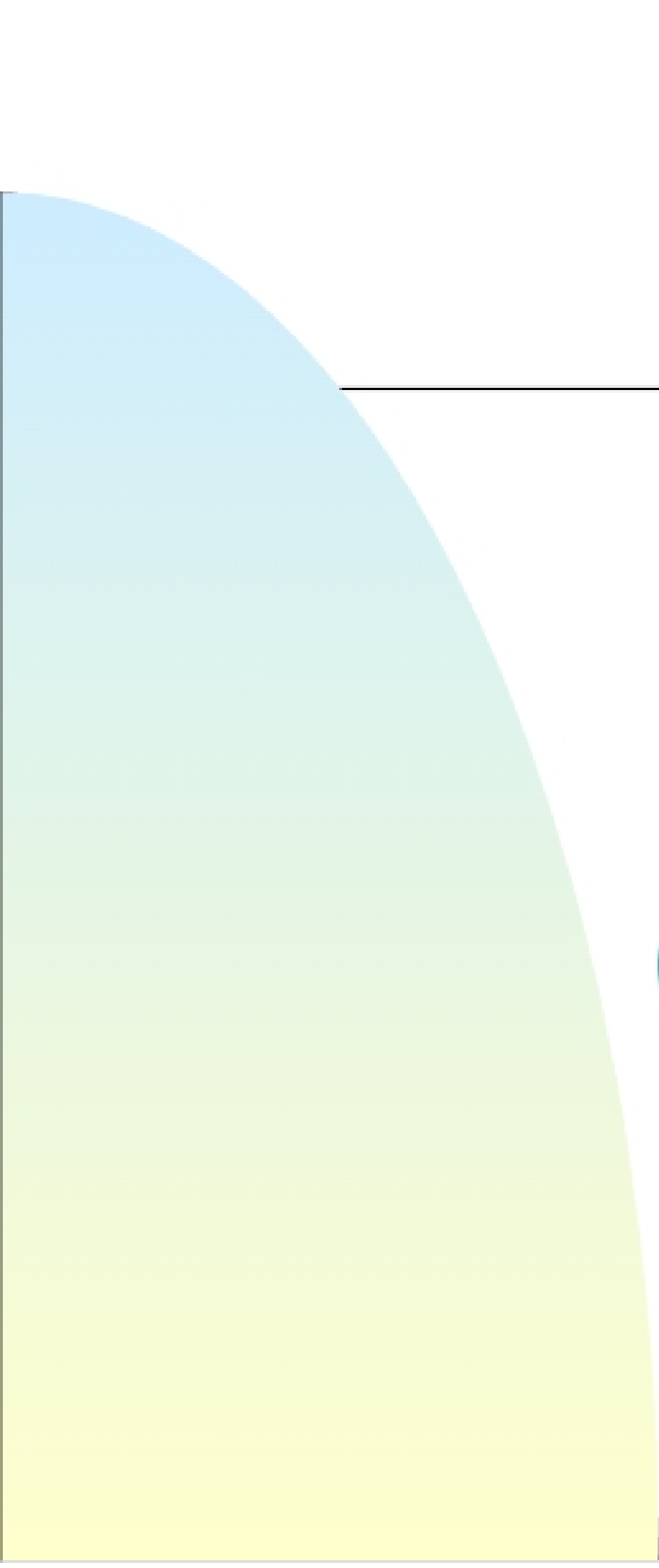




Lesson 12

Object-Oriented Databases

Object-Oriented Database

■ *OODBM*

- ◆ DB is a collection of *objects*
- ◆ each object represents a physical entity and an idea of interest to the DB application
- ◆ new trend in data modeling and DB processing

■ *Goal* of Object-Oriented Data Modeling

- ◆ maintain direct correspondence between real-world and database objects
- ◆ use concepts of class or abstract data type to encapsulate structural properties & operations on types of objects

Object-Oriented Data Model

■ *Objects*

- ◆ encapsulate code & data into a single unit
- ◆ interact w/ others by message passing
- ◆ consist of variables that contain data for the objects; the *value* of each variables by itself is an object
- ◆ state of an object: *set of values* for the attribute called *instance variable* of the object
- ◆ contain methods: a method is a body of code, also called behavior of an object
- ◆ flexible in modifying the definitions (e.g., *methods*) & variables of objects (e.g., referencing)