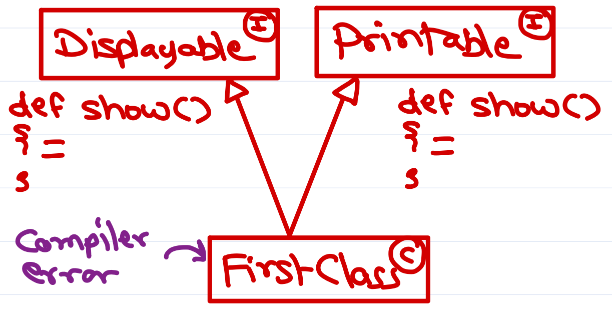
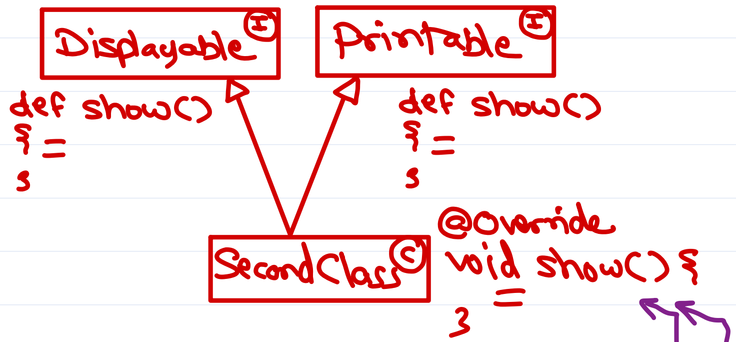
Core Java

Trainer: Nilesh Ghule

Default methods

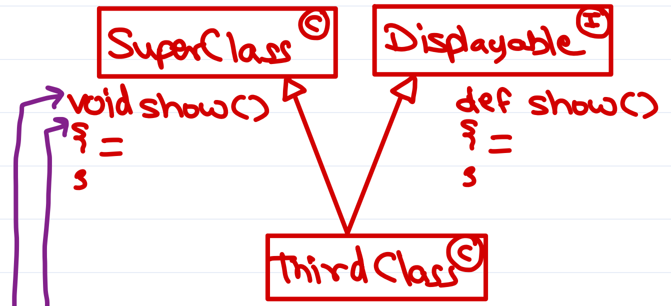
Super-interfaces clash!



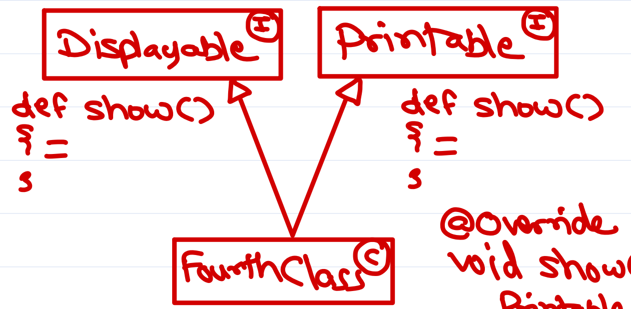


```
@Override
void show() {
    =
}
SecondClass obj= new SecondClass();
  obj.show();
Displayable  ob =new SecondClass();
  ob. show ();
```

Super-class wins!!

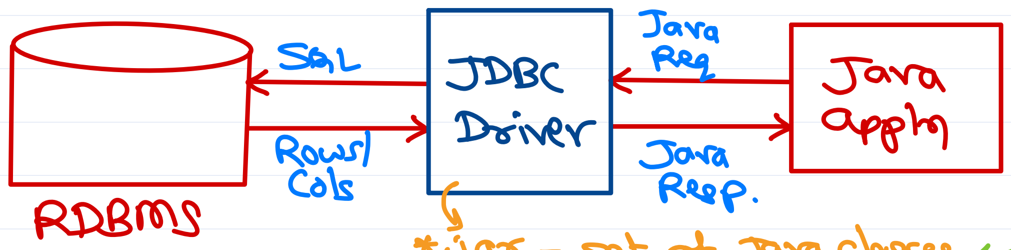


```
ThirdClass obj= new ThirdClass();
  obj.show();
 Displayable ob = new ThirdClass();
  ob.show();
```



```
@Override
void show() {
    Printable.super.show();
    Displayable.super.show();
}
FourthClass obj= new FourthClass();
obj.show();
```

Java Database Connectivity



*.jar = set of java classes

MySQL → mysql-connector-j-x.y.z.jar
Oracle → ojdbc$\underline{x}$.jar
MS-SQL → ______.jar
...

JDBC is a specification/standard.
given with some interfaces & helper classes.

1. java.sql.Driver - create jdbc connection
2. java.sql.Connection - represent jdbc connection & interact (send/rcv) with db
3. java.sql.Statement - represent sql stmt & execute it on server.
   java.sql.PreparedStatement
   executeUpdate(), executeQuery()
4. java.sql.ResultSet - represent db resp = rows + cols.
5. java.sql.DriverManager - choose appropriate driver for creating database connection.

JDBC Programming Steps

① add jdbc driver in current project/classpath.

Project → Properties → Java Build Path → Libraries → Add External Jars → select downloaded JDBC driver jar → Apply & Close.

② load & register jdbc driver.

```
Class.forName("pkg.DriverClass");
```

→ com.mysql.cj.jdbc.Driver

③ create jdbc connection.

```
con = DriverManager.getConnection("dbUrl", "dbUser", "dbPass");
```

→ jdbc:mysql://localhost:3306/database

④ create sql statement.

```
stmt = con.createStatement();
```

⑤ execute sql statement & process its result.

```
rs = stmt.executeQuery("SELECT ...");
while(rs.next()){
    val1 = rs.getInt("col1");
    val2 = rs.getString("col2");
    ...
}
rs.close();
```

```
cnt = stmt.executeUpdate("sql");
```

↑ other than SELECT

⑥ close stmt & connection.

```
stmt.close();
con.close();
```

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Thank you!

Nilesh Ghule <nilesh@sunbeaminfo.com>