Model 1 Map of Team Names

The following abbreviations are for National Football League (NFL) teams:

ATL	Atlanta Falcons
DEN	Denver Broncos
IND	Indianapolis Colts
MIA	Miami Dolphins
SEA	Seattle Seahawks

Complete the table below using *JShell* (the same way you did for **??**).

Java code	Shell output

`Map<String, String> teams;`
`teams = new Map<>();`
`teams = new HashMap<>();`
`teams.isEmpty()`	

`teams.put("MIA", "Miami Dolphins")`
`teams.put("MIA", "Miami")`
`teams.size()`
`teams`	

`teams.put("ATL", "Atlanta")`
`teams.put("SEA", "Seattle")`
`teams`	

`teams.containsKey("ATL")`
`teams.containsKey("DEN")`
`teams.containsValue("Miami")`
`teams.containsValue("Dolphins")`	

`teams.get("SEA")`
`teams.get("IND")`
`teams.get(0)`	

`teams.remove("MIA")`
`teams.remove("MIA")`
`teams`	

`teams.keySet()` `teams.values()`	

Questions (25 min) Start time:

1. For the collection above:

a) What is the interface?

b) What is the class?

c) What type of keys?

d) What type of values?

2. Based on the shell output, describe what the following methods return:

a) `put`

b) `get`

3. What type of object does the `keySet` method return? Describe its contents.

4. What type of object does the `values` method return? Describe its contents.

5. In your own words, summarize what a `Map` is in Java. Give an example from everyday life.

6. Why did `teams.get(0)` return null, even though there were values in the map?

7. Write Java code that defines a map named `dow` that represents the seven days of the week as follows: Sun=1, Mon=2, Tue=3, etc. Run your code in *JShell* to make sure it works.

8. Print the `dow` variable in *JShell*. What do you notice about the order of its contents?