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# ☑ Shark

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|---|---|
| **Language/Type:** | ☕ Java classes constructors Critters fields inheritance instance methods |
| **Related Links:** | Critter.java |
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*("Critter" classes come from the University of Washington's CSE 142 Critters homework assignment. See the assignment spec for more information.)*

Write a class `Shark` that extends the `Critter` class from the Critters assignment. `Shark` objects should alternate between moving to the north and south as follows: first move 1 step north, then 2 steps south, then 3 steps north, then 4 steps south, then 5 steps north, then 6 steps south, and so on, each time moving one farther than previously.

You may add anything needed (fields, other methods, constructors, etc.) to implement this behavior appropriately.

**Type your solution here:**

```java
public class Shark extends Critter {
    private int move;
    private int alternate;


    public Shark(){
        move = 0;
        alternate = 1;
    }

    public Direction getMove(){

        // enter only if move = alternate amount
        // reset moves to 0
        if(move == alternate) {
            // increment to
```

```
17              alternate++;
18              move = 0;
19          }
20
21      move++;
22      // it will keep printing the same until alternate updat
23      // move is what allows alternate to update to the next
24      // move incremented before each return
25      if(alternate % 2 == 0){
26          return Direction.SOUTH;
27      } else {
28          return Direction.NORTH;
29      }
30  }
31
32
33 }
```

This is an **inheritance problem.** Write a Java class using inheritance. (You do not need to write any `import` statements.)

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| | |
|---|---|
| **test #1:** | sharkMove |
| **console output:** | movement (1st shark): "NSSNNNSSSSNNNNNSSSSSSSNNNNN |
| | movement (2nd shark): "NSSNNNSSSSNNNNNSSSSSSSNNNNN |
| **result:** | ⊘ pass |

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