

Jeep Sheep

A modular solution



```
sheepNames = {"Max", "Jerry", "Sandy"};
```

Scenario

Game designers are designing characters for a new online game they hope is going to go viral.

- There are 3 sheep in jeeps.
- There is 1 human player.
- The sheep race 1000m.
- The player predicts the winner.
- The result is displayed.

Challenges

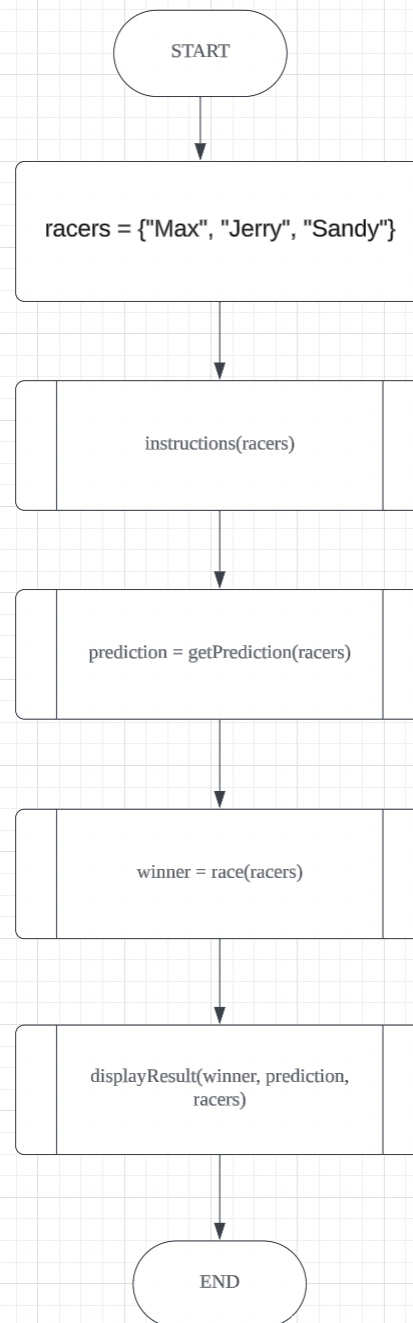
In today's session, you will complete the coding/implementation of 4 functions which have been designed to perform specific tasks in the Jeep Sheep game.

Getting started

The main function follows this algorithm:

Concurrency

Modular programming has many benefits. One of them is concurrent development. More than one programmer can work on the project at the same time, saving development time.



Task 1

Click on each [module](#) that is called in the `main` function. Complete the blanks and paste screenshots of your solutions here:

instructions(racers) function	

getPrediction(racers) function

race(racers) function

displayResult(winner, prediction, racers) function

Task 2

a) Code analysis. Complete the table:

Question	Answer
How many global variables are there?	
What is the first index of the sheepNames array?	
What is the sheep name stored at that index ?	
What is the data type of that sheep name?	
What is the datatype of the parameter in the racers function signature ?	
What is the datatype of the value returned from the getPrediction function?	

b) Describe the purpose of the race function in detail

Task 3

Start a new project in your IDE and get the prototype running. The output should look something like this:

```
1 : Max
2 : Jerry
3 : Sandy
They will race 1000 meters. You will predict the winner. Let's start!
Max, Jerry, Sandy
Which sheep will win the race. Enter your prediction
Max
What a race!
You predicted Max!
The winner is Sandy.
You lost - better luck next time!
```

Task 4 - ASK AI

Using an AI tool of your choice, prompt the tool to design a new function which can be incorporated into this game code to make it more interesting. Make sure you ask for a **static** function in Java.

If you manage to achieve this task, can you integrate the function into your game idea? Paste a copy of the function that your AI Tool generated here:

Task 5 - Free Design

What ideas do you have to make this game more interesting? For example, during the race there is no output. And the race is very fast! Is there a way to slow it down in Java? These are just ideas. Feel free to incorporate your own.

Make sure you continue the design with a MODULAR APPROACH!