```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
Race Results
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
First   Japan
Second  RSA
Third   Jamaica
Fourth  UK
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
Total Team Times
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
Jamaica 43.309 s
Japan   40.686 s
UK      44.046 s
RSA     42.698 s
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
Individual Times
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
Jamaica:
Bolt:  11.800 s
Blake:  10.139 s
Frater: 11.632 s
Carter: 9.738 s
%%%%%%%%%%%%%%%
Japan:
Tada:   10.008 s
Lin:    10.346 s
Kiryu:  9.903 s
Brown:  10.429 s
%%%%%%%%%%%%%%%
UK:
Gemili: 10.791 s
Hughes: 11.431 s
Kilty:  11.420 s
Blake:  10.404 s
%%%%%%%%%%%%%%%
RSA:
Dlodlo: 11.634 s
Ofili:  9.875 s
Munyai: 10.725 s
Amusan: 10.464 s
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

```
 * @author  Karol Wojslaw (10746230)
 */

#include <chrono>
#include <iostream>
#include <string>
#include <thread>
#include "Competitor.h"
#include "EZAgent.h"
#include "FinishAgent.h"
#include "RaceCommon.h"
#include "RandomTwister.h"
#include "Results.h"
#include "StartAgent.h"
#include "ThreadMap.h"

#define DEBUG false  // turn debug messages on / off

RandomTwister rnd;  // an instance of a Random number generator class

void run(Competitor &c, SyncAgent &thisAgent, SyncAgent &nextAgent, ThreadMap &tMap);

/* Main function */
int main() {

/**
 * @brief Simulate an athlete: randomly assign run time, map thread into competitor, sleep and unblock the nex
 * @param Competitor pointer to a competitor object
 * @param SyncAgent pointer to a synchronisation object for this thread
 * @param SyncAgent pointer to a synchronisation object for the next thread
 * @param ThreadMap map of threads and associated Competitor objects
 */
```