

To prepare for this homework session, see if you can answer the following questions. The answers will be provided towards the end of the presentation.

1. A Cycle club is preparing the software to analyse their results. The race will consist of a set of heats to determine the qualifiers, then a final.

What data structures and data types would you use to store the following information?

- Competitor Names
- Race times
- Competitor Nationalities
- Qualifiers for the final

2. What algorithms and associated data structures would you use to extract the following information?

- The best race time
- The winner's name
- How many cyclists from Scotland?
- Bradley's time
- How many cyclists qualified?

3. If you were to use an "off the shelf" application for these tasks, what would it be?