**Race Simulator Technical Documentation**

1. **Technologies**
   1. Microsoft .Net (4.7.2)
   2. C#
   3. WPF
   4. LINQ
   5. XML
2. **Architectural Pattern**
   1. MVVM
3. **Project Structure**

**The project structure is divided in 5 parts.**

* 1. **Model**
     1. There are two models.
        1. **Person**
           1. It is responsible for storing competitor’s initial data and selected competitors.
        2. **Race Result**
           1. It is responsible for storing results of the race.
  2. **View Model**
     1. **There is only one view model and it contains all information for View. The information includes competitors list, commands and helper objects.**
  3. **Views**
     1. **There is only one view.**
  4. **Commands**
     1. Commands are responsible for all actions that are possible in application.
        1. **Load Persons**
           1. It is responsible for loading initial entry list.
        2. **Select Persons**
           1. It is responsible for selecting competitors.
        3. **Start Race**
           1. It is responsible for starting the race.
        4. **Export**
           1. It is responsible for exporting data in XML.
        5. **Remove Persons**
           1. It is responsible for removing competitors from selected competitor’s list.
        6. **Reset**
           1. It will reset entire application.
  5. **Helpers**
     1. **Helper**
        1. It contains generic functions like sorting data and serialization of object for XML.
     2. **Race**
        1. It is main helper class that is responsible for starting the race, managing race events and storing results.
     3. **Export Format**
        1. It is a simple class that defines which objects will be exported.