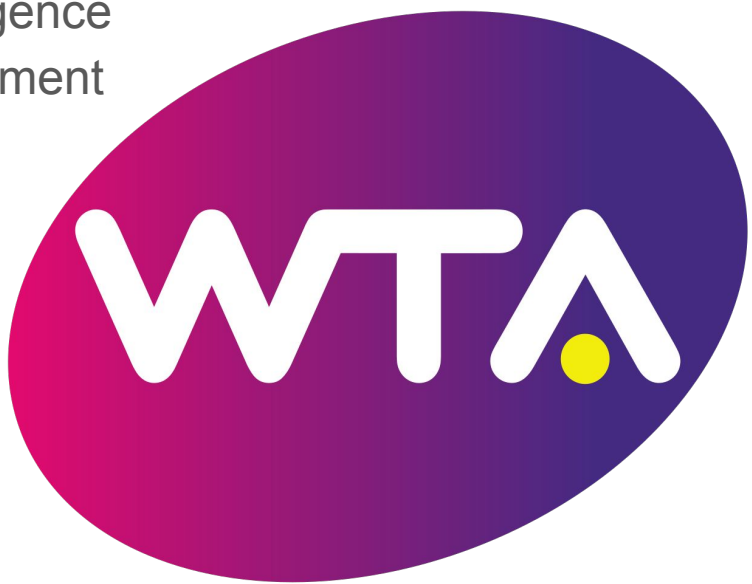
Laboratoire d'Intégration PM - BA - BI

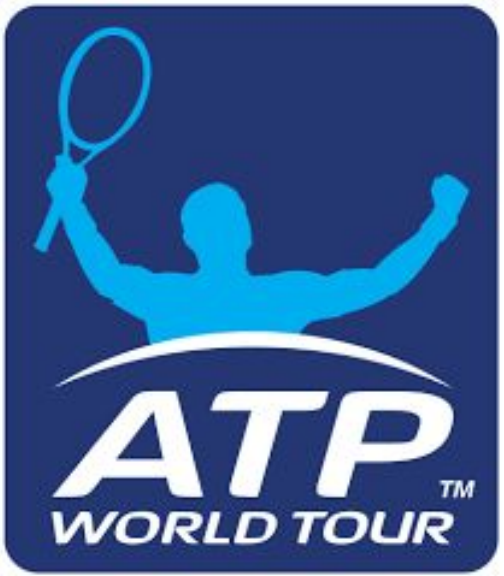
CONSULTING BSTORM

Objectives

Apply the various concepts seen in class to one single case study:

- Business Analysis & Functional Analysis
- Business Intelligence
- Project Management





Business Analysis and Functional Analysis

Case Study

The **ATP** and the **WTA** want an app that will enable them to store information about their “business”; more specifically:

- Create, read, update, delete players’ profile and their coaches’
- Create, read, update, delete tournaments; a tournament is characterized by various information including (but not limited to): the dates, the level, the type of court, the draws, the organizers, the tournament director, the referees, the umpires, the linesman, the ball boys, the prize money, the sponsors, …
- (+) Manage the anti-doping testings (https://www.itftennis.com/antidoping/rules/tadp-overview.aspx)
- (+) Manage the rankings
- (+) Manage the broadcasting rights

Your Tasks

Business Analysis:

- Understand (if not known yet) the rules of the game
- Model the process of tournament organization
- (+) Model the process of anti-doping testing

Functional Analysis:

- Model the Use Case Diagram
- Model the DB Schema
- (+) Model the State Chart for the player

Business Intelligence

Case Study

The ATP and the WTA want to be able to collect and store data in such a way that they will be able to:

- Increase traffic
  - Improve fan experience and engagement http://www.ibmbigdatahub.com/blog/wimbledon-using-real-time-sports-statistics-fan-engagement
  - ATP Stats Leaderboards for web viewers
- Propose Data-based strategies for players and coaches:
  - Self-service descriptive statistics and correlations for players and coaches
- Reframe the sport by promoting factual analysis over intuition
  - Descriptive stats and causal relationships for journalists and commentators

https://www.infosys.com/stories/immersed-game/Documents/tennis-experience-digital-age.pdf

Case Study

Here are some articles explaining/showing how data can be used in tennis:

- http://www.ibmbigdatahub.com/blog/wimbledon-using-real-time-sports-statistics-fan-engagement
- https://nest.latrobe/how-tennis-joined-the-data-revolution/
- https://www.silicon.co.uk/data-storage/how-data-analytics-changing-tennis-175134?inf_by=5af992a8671db8190d8b4771
- https://www.bbva.com/en/wta-ranking-big-data-will-guide-tennis-players-to-the-no-1-spot/
- https://www.infosys.com/stories/immersed-game/Documents/tennis-experience-digital-age.pdf

Case Study

More specifically, both organizations want to be able to answer several questions, including (but not limited to):

- Who won the most matches between 2010 and 2017?
- What is the average duration of a best of 3-set match?
- Who has hit the most aces in 2010, in 2011, etc.?
- When is any player more likely to beat Roger Federer? On which surface?
- Who has won the most matches on grass/clay/hard court?
- Who has won the most Davis Cup/Fed Cup matches?
- ...

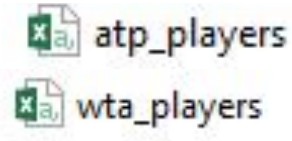
Case Study

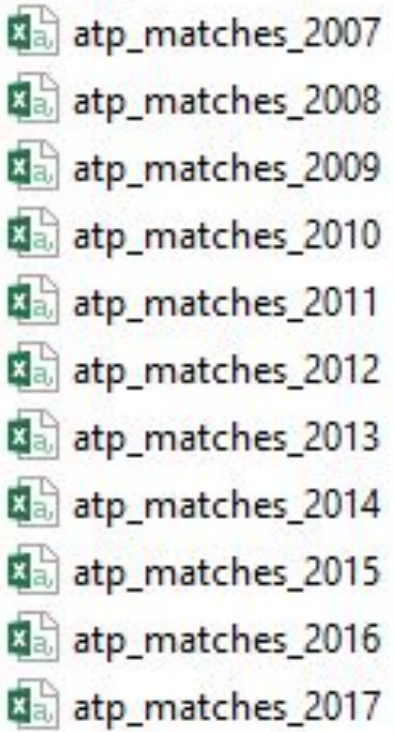
More specifically, both organizations want to be able to answer several questions, including (but not limited to):

- (+) How many matches has a player won after losing the 2 first sets?
- (+) How unlikely was Stan Wawrinka's Australian Open victory? And Marin Cilic's US Open victory?
  http://www.ibmbigdatahub.com/blog/how-unlikely-was-wawrinkas-australian-open-victory
- (+) Is there a correlation between the number of aces and the winner of the match?
- ...

Case Study Sources

- ATP results
- WTA results
- Players information
- You can add any other relevant information
  - Countries and Continents
  - Tournaments information (e.g. prize money, main sponsors, ...)





Project Management

Project Management Activities

Manage your project as you would any other project:

- Identify your **tasks**
- Estimate them
- Identify the **critical path**
- Analyse your **resources**
- Assign them to your tasks
- Manage the **risks**
- …

Use **MS Project** or another PM software

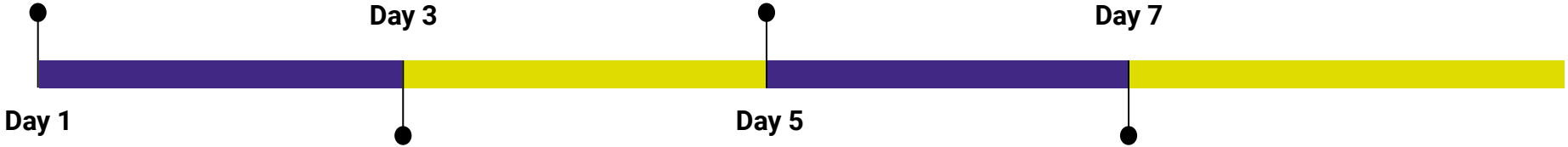
Your Tasks: Planning

Case Study Introduction:

- **Expected deliverables**
- **Practical Details**

End of Day 4 - Deliverables:

- **Functional Analysis**
- **Multi-Dimensional Model**



End of Day 2 - Deliverables:

- **Planning**
- **Business Analysis**

End of Day 6 - Deliverables:

- **80% of Dimension Tables loaded**

Practical Details

- Alone or by 2
- A 5-min. briefing will be held every morning with each team
- Each team will be allowed 3 SOS
- Each group will present (a part of) their results to the class in a presentation of ± 15 minutes
  a. Show one of your deliverables
  b. Explain the difficulties you encountered