



DATA MANAGEMENT FOR DATA SCIENCE HW3

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| Collection Name | #Docs | #Fields | Explanation |
|-----------------------------|-------|---------|-------------------------------------------------------------------------------------------------|
| atp_matches_2018 | 2604 | 43 | Single(1vs1) matches of multiple tournaments on 2018. |
| atp_matches_2019 | 2635 | 43 | Single(1vs1) matches of multiple tournaments on 2019. |
| atp_matches_doubles_2018 | 1183 | 57 | Double(2vs2) matches of multiple tournaments on 2018. |
| atp_matches_doubles_2019 | 1087 | 57 | Double(2vs2) matches of multiple tournaments on 2019 |
| atp_matches_futures_2018 | 16291 | 20 | Futures matches of 2018 that allow for players to win career titles and improve their rankings. |
| atp_matches_futures_2019 | 15487 | 20 | Futures matches of 2019 that allow for players to win career titles and improve their rankings. |
| atp_matches_qual_chall_2018 | 8428 | 43 | ATP Challenger tour matches of 2018. |
| atp_matches_qual_chall_2019 | 7689 | 43 | ATP Challenger tour matches of 2019. |
| atp_players | 43542 | 6 | ID, nationality, hand, first name, last name and birthdays of players of all of these matches |
| atp_rankings_current | 17080 | 4 | Rankings of the players on different ranking dates. |

ATP: Association of Tennis Professionals

Mostly used fields:

atp_players collection:

- player_id, country_code, hand, first_name, last_name:

On different collections that shows matches:

- winner_id, loser_id, tourney_name, winner_age, loser_age, winner_ioc(country), loser_ioc(country), minutes

**for doubles matches there are two winner and loser fields

| | CHARACTERISTICS |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NOSQL | <ul style="list-style-type: none">• Flexibility(unstructured)• Preferred when data need a flexible schema• For developers: complex expresiveness• Use when it's more important to have fast data than correct data• Base (Basically Available, Soft state, Eventually Consistent) is a model of many NoSQL systems |
| SQL | <ul style="list-style-type: none">• Non-flexible(structured)• Preferred when you want to use joins and execute complex queries• For developers: simple expressiveness• It should be used when data validity is super important.• ACID(Atomicity, Consistency, Isolation, and Durability) is a standard for RDBMS |