lichess-stats.org

API Version: 0.1.0

INDEX

API

1. GAMES

1.1 GET /api/games/date-distribution

Date Distribution

Get the distribution of game dates.

REQUEST

No request parameters

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  dates* [{
  Array of object:
    start_date*  string   PATTERN:^\d{4}-\d{2}-\d{2}$
                          The start date of games in this bin (YYYY-MM-DD, UTC).
    count*       integer  >=0
                          The number of games in this bin.
  }]
}
```

1.2 GET /api/games/castling-percentage

Castling Percentage

Get the castling percentage by player.

REQUEST

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
username	string	Optionally, provide a specific username for which to get castling statistics.
game_type	enum **ALLOWED:** UltraBullet, Bullet, Blitz, Rapid, Classical, Correspondence	The game type to analyze.
start_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify a start date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).
end_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify an end date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
```

```
players* [{
Array of object:
    username*                 string   The username of this player.
    castling_percentage*      number   between 0 and  100
                                       The castling percentage of this player (0-100).

}]
}
```

STATUS CODE - 422: Validation Error

RESPONSE MODEL - application/json

```
{
  detail [{
  Array of object:
    loc*   [string]
    msg*   string
    type*  string
  }]
}
```

1.3 GET /api/games/castling-side-percentages

Castling Side Percentages

Get kingside and queenside castling percentages by player.

REQUEST

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
username	string	Optionally, provide a specific username for which to get castling statistics.
game_type	enum **ALLOWED:** UltraBullet, Bullet, Blitz, Rapid, Classical, Correspondence	The game type to analyze.
start_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify a start date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).
end_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify an end date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  players* [{
  Array of object:
    username*                  string   The username of this player.
    kingside_percentage*       number   between 0 and  100
                                        The kingside castling percentage of this player (0-100).
    queenside_percentage*      number   between 0 and  100
                                        The kingside castling percentage of this player (0-100).

  }]
}
```

STATUS CODE - 422: Validation Error

RESPONSE MODEL - application/json

```
{
  detail [{
  Array of object:
    loc*   [string]
    msg*   string
    type*  string
  }]
}
```

1.4 GET /api/games/avg-time-to-win

Avg Time To Win

Average time taken for a player to win.

REQUEST

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
username	string	Optionally, provide a specific username for which to get average time to win.
game_type	enum **ALLOWED:** UltraBullet, Bullet, Blitz, Rapid, Classical, Correspondence	The game type to analyze.
start_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify a start date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).
end_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify an end date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  players* [{
  Array of object:
    username*         string   The username of this player.
    avg_time_to_win*  number   >=0
                               The average time to win of this player (in seconds).
  }]
}
```

STATUS CODE - 422: Validation Error

RESPONSE MODEL - application/json

```
{
  detail [{
  Array of object:
    loc*   [string]
    msg*   string
    type*  string
  }]
```

```
        }
```

1.5 GET /api/games/MostCommonOpeningsElo

Mostcommonopenings

Most Common Openings Played in an Elo Range

REQUEST

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
elo_lower	integer	Optionally, provide a lower bound for elo search
elo_upper	integer	Optionally, provide an upper bound for elo search
game_type	enum **ALLOWED:** UltraBullet, Bullet, Blitz, Rapid, Classical, Correspondence	Optionally, specify a game type to analyze.

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

undefined

STATUS CODE - 422: Validation Error

RESPONSE MODEL - application/json

```
{
   detail [{
   Array of object:
      loc*    [string]
      msg*    string
      type*   string
   }]
}
```

1.6 GET /api/games/BiggestComebacks

Biggestcomebacks

Ordered list of biggest comebacks made for players

REQUEST

No request parameters

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

undefined

2. PROFILE

Routes involving analysis of user profile attributes.
A description of player title enum values:
Value	Description
GM	Grandmaster
WGM	Woman Grandmaster
IM	International Master
WIM	Woman International Master
FM	FIDE Master
WFM	Woman FIDE Master
NM	National Master
CM	Candidate Master (FIDE)
WCM	Woman Candidate Master (FIDE)
WNM	Woman National Master
LM	Lichess Master
BOT	Bot Account

2.1 GET /api/profile/title/description

Title Description

Get an array of title descriptions.

REQUEST

No request parameters

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  titles* [{
  Array of object:
    title           enum     ALLOWED:GM, WGM, IM, WIM, FM, WFM, NM, CM, WCM, WNM, LM, BOT
                             The player title (or null if untitled)
    description*    string   A description of this title.
  }]
}
```

2.2 GET /api/profile/title/distribution

Title Distribution

Get the distribution of players by title.

REQUEST

No request parameters

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  titles* [{
```

```
    Array of object:
        title    enum      ALLOWED:GM, WGM, IM, WIM, FM, WFM, NM, CM, WCM, WNM, LM, BOT
                           The player title (or null if untitled)
        count*   integer   >=0
                           The number of players with this title.
    }]
}
```

2.3 GET /api/profile/title/results

Result Percentages By Title

Get win/draw/loss percentages by title.

REQUEST

No request parameters

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  titles* [{
    Array of object:
        title              enum      ALLOWED:GM, WGM, IM, WIM, FM, WFM, NM, CM, WCM, WNM, LM,
                                     BOT
                                     The player title (or null if untitled)
        win_percentage     number    between 0 and  100
                                     The average win percentage (0-100) of players with this title.
        draw_percentage    number    between 0 and  100
                                     The average draw percentage (0-100) of players with this title.
        loss_percentage    number    between 0 and  100
                                     The average loss percentage (0-100) of players with this title.
    }]
}
```

2.4 GET /api/profile/title/results/counts

Result Counts By Title

Get win/draw/loss counts by title.

REQUEST

No request parameters

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  titles* [{
    Array of object:
        title       enum      ALLOWED:GM, WGM, IM, WIM, FM, WFM, NM, CM, WCM, WNM, LM, BOT
                              The player title (or null if untitled)
        win_count   integer   >=0
```

```
                                    The total number of wins by players with this title.
    draw_count  integer  >=0
                                    The total number of draws by players with this title.
    loss_count  integer  >=0
                                    The total number of losses by players with this title.
  }]
}
```

2.5 GET /api/profile/title/completion-rate

Completion Rate By Title
Get statistics on game completion rate by title.

REQUEST

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
game_type	enum **ALLOWED:** UltraBullet, Bullet, Blitz, Rapid, Classical, Correspondence	Optionally, specify a game type to analyze.
start_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify a start date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).
end_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify an end date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  titles* [{
  Array of object:
    title                    enum     ALLOWED:GM, WGM, IM, WIM, FM, WFM, NM, CM, WCM, WNM,
                                      LM, BOT
                                      The player title (or null if untitled)
    avg_completion_rate      number   between 0 and  100
                                      The average game completion rate (0-100) of players with this title. A player is
                                      considered to have completed the game if they did not resign or abandon the game.
    stddev_completion_rate   number   between 0 and  100
                                      The standard deviation of game completion rates of players with this title.
  }]
}
```

STATUS CODE - 422: Validation Error

RESPONSE MODEL - application/json

```
{
  detail [{
  Array of object:
    loc*   [string]
    msg*   string
    type*  string
  }]
}
```

2.6 GET /api/profile/title/termination-type

Termination Type By Title

Get game termination type percentages by title.

REQUEST

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
termination_parity	enum ALLOWED: Win, Draw, Loss	Optionally, specify the parity of the result (win, draw, or loss) from the perspective of the player with the relevant title.
game_type	enum ALLOWED: UltraBullet, Bullet, Blitz, Rapid, Classical, Correspondence	Optionally, specify a game type to analyze.
start_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify a start date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).
end_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify an end date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  titles* [{
  Array of object:

    title                      enum                      ALLOWED:GM, WGM, IM, WIM, FM, WFM,
                                                         NM, CM, WCM, WNM, LM, BOT
                                                         The player title (or null if untitled)

    termination_types* [{
    Array of object:

      termination_type*  enum    ALLOWED:Resignation, DrawAgreement, TimeForfeit,
                                 Checkmate, Stalemate, InsufficientMaterial,
                                 SeventyFiveMoveRule, FivefoldRepetition,
                                 FiftyMoveRule, ThreefoldRepetition, RulesInfraction
                                 The termination type.
      percentage*        number  between 0 and  100
                                 The percentage (0-100) of games with this termination type, played by players with this
                                 title.

    }]
  }]
}
```

STATUS CODE - 422: Validation Error

RESPONSE MODEL - application/json

```
{
  detail [{
  Array of object:

    loc*   [string]
    msg*   string
    type*  string
  }]
}
```

2.7 GET /api/profile/title/game-length

Game Length By Title

Get statistics on game length (number of moves) by title.

REQUEST

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
game_type	enum **ALLOWED:** UltraBullet, Bullet, Blitz, Rapid, Classical, Correspondence	Optionally, specify a game type to analyze.
start_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify a start date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).
end_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify an end date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  titles* [{
  Array of object:
     title                    enum    ALLOWED:GM, WGM, IM, WIM, FM, WFM, NM, CM, WCM, WNM, LM,
                                      BOT
                                      The player title (or null if untitled)
     avg_game_length          number  >=1
                                      The average game length (number of moves) played by players with this title.
     stddev_game_length       number  >=0
                                      The standard deviation of game lengths (number of moves) played by players with this title.
  }]
}
```

STATUS CODE - 422: Validation Error

RESPONSE MODEL - application/json

```
{
  detail [{
  Array of object:
     loc*    [string]
     msg*    string
     type*   string
  }]
}
```

2.8 GET /api/profile/country/distribution

Country Distribution

Get the distribution of players by country.

REQUEST

No request parameters

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  countries* [{
  Array of object:
    country   string   The player's country.
    count*    integer  >=0
                       The number of players from this country.
  }]
}
```

2.9 GET /api/profile/country/results

Result Percentages By Country

Get win/draw/loss percentages by country.

REQUEST

No request parameters

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  countries* [{
  Array of object:
    country           string   The player's country.
    win_percentage    number   between 0 and  100
                               The average win percentage (0-100) of players from this country.
    draw_percentage   number   between 0 and  100
                               The average draw percentage (0-100) of players from this country.
    loss_percentage   number   between 0 and  100
                               The average loss percentage (0-100) of players from this country.
  }]
}
```

2.10 GET /api/profile/country/results/counts

Result Counts By Country

Get win/draw/loss counts by country.

REQUEST

No request parameters

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  countries* [{
```

```
Array of object:
    country      string     The player's country.
    win_count    integer    >=0
                            The total number of wins by players from this country.
    draw_count   integer    >=0
                            The total number of draws by players from this country.
    loss_count   integer    >=0
                            The total number of losses by players from this country.
  }]
}
```

2.11 GET /api/profile/country/completion-rate

Completion Rate By Country

Get statistics on player ratings by country.

REQUEST

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
game_type	enum **ALLOWED:** UltraBullet, Bullet, Blitz, Rapid, Classical, Correspondence	Optionally, specify a game type to analyze.
start_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify a start date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).
end_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify an end date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  countries* [{
  Array of object:
    country                 string   The player's country.
    avg_completion_rate     number   between 0 and  100
                                     The average completion rate (0-100) of players from this country. A player is
                                     considered to have completed the game if they did not resign or abandon the game.
    stddev_completion_rate  number   between 0 and  100
                                     The standard deviation of completion rates of players from this country.
  }]
}
```

STATUS CODE - 422: Validation Error

RESPONSE MODEL - application/json

```
{
  detail [{
  Array of object:
    loc*   [string]
    msg*   string
    type*  string
  }]
```

```
    }
```

2.12 GET /api/profile/country/termination-type

Termination Type By Country

Get game termination type percentages by country.

REQUEST

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
termination_parity	enum **ALLOWED:** Win, Draw, Loss	Optionally, specify the parity of the result (win, draw, or loss) from the perspective of the player from the relevant country.
game_type	enum **ALLOWED:** UltraBullet, Bullet, Blitz, Rapid, Classical, Correspondence	Optionally, specify a game type to analyze.
start_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify a start date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).
end_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify an end date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  countries* [{
  Array of object:
    country                    string                    The player's country.
    termination_types* [{
    Array of object:
      termination_type* enum   ALLOWED:Resignation, DrawAgreement, TimeForfeit,
                               Checkmate, Stalemate, InsufficientMaterial,
                               SeventyFiveMoveRule, FivefoldRepetition,
                               FiftyMoveRule, ThreefoldRepetition, RulesInfraction
                               The termination type.
      percentage*      number  between 0 and  100
                               The percentage (0-100) of games with this termination type, played by players from this
                               country.
    }]
  }]
}
```

STATUS CODE - 422: Validation Error

RESPONSE MODEL - application/json

```
{
  detail [{
  Array of object:
    loc*   [string]
    msg*   string
    type*  string
  }]
```

```
        }
```

2.13 GET /api/profile/country/game-length

Game Length By Country

Get statistics on game length (number of moves) by country.

REQUEST

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
game_type	enum ALLOWED: UltraBullet, Bullet, Blitz, Rapid, Classical, Correspondence	Optionally, specify a game type to analyze.
start_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify a start date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).
end_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify an end date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
    countries* [{
    Array of object:
        country                 string   The player's country.
        avg_game_length         number   >=1

                                          The average game length (number of moves) played by players from this country.
        stddev_game_length  number       >=0

                                          The standard deviation of game lengths (number of moves) played by players from this
                                          country.
    }]
}
```

STATUS CODE - 422: Validation Error

RESPONSE MODEL - application/json

```
{
    detail [{
    Array of object:
        loc*    [string]
        msg*    string
        type*   string
    }]
}
```

3. RATING

Routes involving analysis of user ratings.

3.1 GET /api/rating/{rating_type}/distribution

Distribution

Get the distribution of player ratings (rating taken from player profile).

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*rating_type	enum **ALLOWED:** UltraBullet, Bullet, Blitz, Rapid, Classical, Correspondence, FIDE, USCF, ECF	The rating type.

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
bin_size	integer >=1	Optionally, specify the rating bin size.

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  bins* [{
  Array of object:
    rating_min*  integer  >=0
                 The minimum rating of this bin (inclusive).
    rating_max*  integer  >=0
                 The maximum rating of this bin (exclusive).
    count*       integer  >=1
                 The number of players in this rating bin.
  }]
}
```

STATUS CODE - 422: Validation Error

RESPONSE MODEL - application/json

```
{
  detail [{
  Array of object:
    loc*   [string]
    msg*   string
    type*  string
  }]
}
```

3.2 GET /api/rating/{rating_type}/compare

Compare

Get the average rating (for each game type), broken down by rating in a specific game type (ratings taken from player profile).

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*rating_type	enum ALLOWED: UltraBullet, Bullet, Blitz, Rapid, Classical, Correspondence, FIDE, USCF, ECF	The rating type over which to bin.

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
bin_size	integer >=1	Optionally, specify the rating bin size.

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  bins* [{
  Array of object:
    rating_min*              integer  >=0
                                      The minimum rating of this bin (inclusive).
    rating_max*              integer  >=0
                                      The maximum rating of this bin (exclusive).
    ultrabullet_rating       number   >=0
                                      The average ultrabullet rating of players in this rating bin.
    bullet_rating            number   >=0
                                      The average bullet rating of players in this rating bin.
    blitz_rating             number   >=0
                                      The average blitz rating of players in this rating bin.
    rapid_rating             number   >=0
                                      The average rapid rating of players in this rating bin.
    classical_rating         number   >=0
                                      The average classical rating of players in this rating bin.
    correspondence_rating    number   >=0
                                      The average correspondence rating of players in this rating bin.
    fide_rating              number   >=0
                                      The average fide rating of players in this rating bin.
    uscf_rating              number   >=0
                                      The average uscf rating of players in this rating bin.
    ecf_rating               number   >=0
                                      The average ecf rating of players in this rating bin.
  }]
}
```

STATUS CODE - 422: Validation Error

RESPONSE MODEL - application/json

```
{
  detail [{
  Array of object:
```

```
        loc*   [string]
        msg*   string
        type*  string
      }]
    }
```

3.3 GET /api/rating/{rating_type}/title

Title

Get statistics on player ratings by title.

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*rating_typ e	enum **ALLOWED:** UltraBullet, Bullet, Blitz, Rapid, Classical, Correspondence, FIDE, USCF, ECF	The rating type to analyze.

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  titles* [{
  Array of object:
      title          enum    ALLOWED:GM, WGM, IM, WIM, FM, WFM, NM, CM, WCM, WNM, LM, BOT
                             The player title (or null if untitled).
      avg_rating     number  >=0
                             The average rating of players with this title.
      stddev_rating  number  >=0
                             The standard deviation of ratings of players with this title.
  }]
}
```

STATUS CODE - 422: Validation Error

RESPONSE MODEL - application/json

```
{
  detail [{
  Array of object:
      loc*   [string]
      msg*   string
      type*  string
  }]
}
```

3.4 GET /api/rating/{rating_type}/country

Country

Get statistics on player ratings by country.

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*rating_type	enum ALLOWED: UltraBullet, Bullet, Blitz, Rapid, Classical, Correspondence, FIDE, USCF, ECF	The rating type to analyze.

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  countries* [{
  Array of object:
    country       string   The player's country.
    avg_rating    number   >=0
                           The average rating of players from this country.
    stddev_rating number   >=0
                           The standard deviation of ratings of players from this country.
  }]
}
```

STATUS CODE - 422: Validation Error

RESPONSE MODEL - application/json

```
{
  detail [{
  Array of object:
    loc*  [string]
    msg*  string
    type* string
  }]
}
```

3.5 GET /api/rating/{rating_type}/play-time

Play Time

Get the average total play time (in seconds), broken down by player rating (rating taken from player profile).

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*rating_type	enum ALLOWED: UltraBullet, Bullet, Blitz, Rapid, Classical, Correspondence, FIDE, USCF, ECF	The rating type over which to bin.

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
bin_size	integer >=1	Optionally, specify the rating bin size.

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  bins* [{
  Array of object:
      rating_min*        integer  >=0
                                  The minimum rating of this bin (inclusive).
      rating_max*        integer  >=0
                                  The maximum rating of this bin (exclusive).
      avg_play_time*     number   >=0
                                  The average total play time (in seconds) for players in this rating bin.
      stddev_play_time*  number   >=0
                                  The standard deviation of total play time (in seconds) for players in this rating bin.
  }]
}
```

STATUS CODE - 422: Validation Error

RESPONSE MODEL - application/json

```
{
  detail [{
  Array of object:
      loc*   [string]
      msg*   string
      type*  string
  }]
}
```

3.6 GET /api/rating/{rating_type}/percent-patron

Percent Patron

Get the percentage of players who are Lichess patrons, broken down by rating (rating taken from player profile).

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*rating_typ e	enum **ALLOWED:** UltraBullet, Bullet, Blitz, Rapid, Classical, Correspondence, FIDE, USCF, ECF	The rating type over which to bin.

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
bin_size	integer >=1	Optionally, specify the rating bin size.

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  bins* [{
  Array of object:
    rating_min*        integer  >=0
                                The minimum rating of this bin (inclusive).
    rating_max*        integer  >=0
                                The maximum rating of this bin (exclusive).
    percent_patron* number      between 0 and  100
                                The percentage (0-100) of players in this rating bin who are Lichess patrons.
  }]
}
```

STATUS CODE - 422: Validation Error

RESPONSE MODEL - application/json

```
{
  detail [{
  Array of object:
    loc*   [string]
    msg*   string
    type*  string
  }]
}
```

3.7 GET /api/rating/{rating_type}/percent-tos-violators

Percent Tos Violators

Get the percentage of players who have violated TOS, broken down by rating (rating taken from player profile).

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*rating_typ e	enum **ALLOWED:** UltraBullet, Bullet, Blitz, Rapid, Classical, Correspondence, FIDE, USCF, ECF	The rating type over which to bin.

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
bin_size	integer >=1	Optionally, specify the rating bin size.

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  bins* [{
  Array of object:
    rating_min*              integer  >=0
                                      The minimum rating of this bin (inclusive).
    rating_max*              integer  >=0
                                      The maximum rating of this bin (exclusive).
```

```
       percent_tos_violators*  number   between 0 and   100
                                         The percentage (0-100) of players in this rating bin who have violated TOS.
    }]
  }
```

STATUS CODE - 422: Validation Error

RESPONSE MODEL - application/json

```
{
  detail [{
  Array of object:
    loc*   [string]
    msg*   string
    type*  string
  }]
}
```

3.8 GET /api/rating/{rating_type}/cumulative-result-percentages

Cumulative Result Percentages

Get the average cumulative win/draw/loss percentages by player rating range (rating taken from player profile).

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*rating_typ e	enum ALLOWED: UltraBullet, Bullet, Blitz, Rapid, Classical, Correspondence, FIDE, USCF, ECF	The rating type over which to bin.

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
bin_size	integer >=1	Optionally, specify the rating bin size.

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  bins* [{
  Array of object:
    rating_min*      integer >=0
                             The minimum rating of this bin (inclusive).
    rating_max*      integer >=0
                             The maximum rating of this bin (exclusive).
    win_percentage*  number  between 0 and   100
                             The average cumulative win percentage (0-100) of this bin.
    draw_percentage* number  between 0 and   100
                             The average cumulative draw percentage (0-100) of this bin.
    loss_percentage* number  between 0 and   100
                             The average cumulative loss percentage (0-100) of this bin.
  }]
```

```
    }
```

STATUS CODE - 422: Validation Error

RESPONSE MODEL - application/json

```
{
  detail [{
  Array of object:
    loc*   [string]
    msg*   string
    type*  string
  }]
}
```

3.9 GET /api/rating/{game_type}/completion-rate

Completion Rate

Get the average cumulative completion rate, broken down by player rating (rating at the time of the game).

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*game_type	enum ALLOWED: UltraBullet, Bullet, Blitz, Rapid, Classical, Correspondence	The game type to analyze.

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
start_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify a start date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).
end_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify an end date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).
bin_size	integer >=1	Optionally, specify the rating bin size.

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  bins* [{
  Array of object:
    rating_min*               integer  >=0
                              The minimum rating of this bin (inclusive).
    rating_max*               integer  >=0
                              The maximum rating of this bin (exclusive).
    avg_completion_rate       number   between 0 and  100
                              The average completion rate (0-100) of players in this rating bin. A player is
                              considered to have completed a game if they did not resign or abandon the game.
    stddev_completion_rate    number   between 0 and  100
                              The standard deviation of completion rates of players in this rating bin.
```

```
    }]
  }
```

STATUS CODE - 422: Validation Error

RESPONSE MODEL - application/json

```
{
  detail [{
  Array of object:
    loc*   [string]
    msg*   string
    type*  string
  }]
}
```

3.10 GET /api/rating/{game_type}/castling-percentage

Castling Percentage

Get the average castling rate, broken down by player rating (rating at the time of the game).

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*game_type	enum **ALLOWED**: UltraBullet, Bullet, Blitz, Rapid, Classical, Correspondence	The game type to analyze.

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
start_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify a start date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).
end_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify an end date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).
bin_size	integer >=1	Optionally, specify the rating bin size.

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  bins* [{
  Array of object:
    rating_min*    integer >=0
                   The minimum rating of this bin (inclusive).
    rating_max*    integer >=0
                   The maximum rating of this bin (exclusive).
    castling_rate  number  between 0 and  100
                   The average castling rate (0-100) of players in this rating bin.
  }]
}
```

STATUS CODE - 422: Validation Error

RESPONSE MODEL - application/json

```
{
   detail [{
   Array of object:
      loc*    [string]
      msg*    string
      type*   string
   }]
}
```

3.11 GET /api/rating/{game_type}/result-percentages

Result Percentages

Get the average win/draw/loss percentages broken down by color and player rating range (rating at the time of the game).

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*game_type	enum ALLOWED: UltraBullet, Bullet, Blitz, Rapid, Classical, Correspondence	The game type to analyze.

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
start_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify a start date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).
end_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify an end date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).
bin_size	integer >=1	Optionally, specify the rating bin size.

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
   bins* [{
   Array of object:
      rating_min*              integer  >=0
                                        The minimum rating of this bin (inclusive).
      rating_max*              integer  >=0
                                        The maximum rating of this bin (exclusive).
      white_win_percentage     number   between 0 and  100
                                        The average win percentage (0-100) of the white player in this bin.
      white_draw_percentage    number   between 0 and  100
                                        The average draw percentage (0-100) of the white player in this bin.
      white_loss_percentage    number   between 0 and  100
                                        The average loss percentage (0-100) of the white player in this bin.
```

```
        black_win_percentage    number    between 0 and  100
                                           The average win percentage (0-100) of the black player in this bin.
        black_draw_percentage   number    between 0 and  100
                                           The average draw percentage (0-100) of the black player in this bin.
        black_loss_percentage   number    between 0 and  100
                                           The average loss percentage (0-100) of the black player in this bin.
    }]
  }
```

STATUS CODE - 422: Validation Error

RESPONSE MODEL - application/json

```
{
  detail [{
  Array of object:
    loc*   [string]
    msg*   string
    type*  string
  }]
}
```

3.12 GET /api/rating/{game_type}/result-percentages-2d

Result Percentages 2D

Get the average win/draw/loss percentages broken down by white rating and black rating (rating at the time of the game).

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*game_type	enum **ALLOWED:** UltraBullet, Bullet, Blitz, Rapid, Classical, Correspondence	The game type to analyze.

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
start_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify a start date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).
end_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify an end date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).
bin_size	integer >=1	Optionally, specify the rating bin size (for each color).

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  bins* [{
  Array of object:
    white_rating_min*       integer   The minimum rating of the white player for this bin.
    white_rating_max*       integer   The maximum rating of the white player for this bin.
```

black_rating_min*	integer	The minimum rating of the black player for this bin.
black_rating_max*	integer	The maximum rating of the black player for this bin.
white_win_percentage	number	between 0 and 100
		The average win percentage (0-100) of the white player in this bin.
white_draw_percentage	number	between 0 and 100
		The average draw percentage (0-100) of the white player in this bin.
white_loss_percentage	number	between 0 and 100
		The average loss percentage (0-100) of the white player in this bin.
black_win_percentage	number	between 0 and 100
		The average win percentage (0-100) of the black player in this bin.
black_draw_percentage	number	between 0 and 100
		The average draw percentage (0-100) of the black player in this bin.
black_loss_percentage	number	between 0 and 100
		The average loss percentage (0-100) of the black player in this bin.

```
    }]
  }
```

STATUS CODE - 422: Validation Error

RESPONSE MODEL - application/json

```
{
  detail [{
  Array of object:
    loc*   [string]
    msg*   string
    type*  string
  }]
}
```

3.13 GET /api/rating/{game_type}/game-length

Game Length

Get the average game length (number of moves) broken down by player rating (rating at the time of the game).

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*game_type	enum ALLOWED: UltraBullet, Bullet, Blitz, Rapid, Classical, Correspondence	The game type to analyze.

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
start_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify a start date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).
end_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify an end date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).
bin_size	integer >=1	Optionally, specify the rating bin size (for each color).

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  bins* [{
  Array of object:
    rating_min*    integer  >=0
                   The minimum rating of this bin (inclusive).
    rating_max*    integer  >=0
                   The maximum rating of this bin (exclusive).
    game_length*   number   >=1
                   The average game length (number of moves) for games in this rating bin.
  }]
}
```

STATUS CODE - 422: Validation Error

RESPONSE MODEL - application/json

```
{
  detail [{
  Array of object:
    loc*    [string]
    msg*    string
    type*   string
  }]
}
```

3.14 GET /api/rating/{game_type}/num-openings

Num Openings

Get the average number of distinct openings per player broken down by player rating (rating at the time of the game).

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*game_type	enum ALLOWED: UltraBullet, Bullet, Blitz, Rapid, Classical, Correspondence	The game type to analyze.

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
start_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify a start date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).
end_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify an end date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).
bin_size	integer >=10	Optionally, specify the rating bin size (for each color). For this route, bin size should be higher to get enough per-player data.

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
    bins* [{
    Array of object:
        rating_min*    integer  >=0
                                The minimum rating of this bin (inclusive).
        rating_max*    integer  >=0
                                The maximum rating of this bin (exclusive).
        num_openings*  number   >=0
                                The average number of distinct openings (passing the optionally specified frequency threhsold) per
                                player in this rating bin.

    }]
}
```

STATUS CODE - 422: Validation Error

RESPONSE MODEL - application/json

```
{
    detail [{
    Array of object:
        loc*   [string]
        msg*   string
        type*  string
    }]
}
```

3.15 GET /api/rating/{game_type}/termination-type

Termination Type

Get game termination type percentages broken down by player rating (rating at the time of the game).

REQUEST

PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*game_type	enum ALLOWED: UltraBullet, Bullet, Blitz, Rapid, Classical, Correspondence	The game type to analyze.

QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
termination_parity	enum ALLOWED: Win, Draw, Loss	Optionally, specify the parity of the result (win, draw, or loss) from the perspective of the player from the relevant country.
start_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify a start date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).
end_date	string PATTERN: ^\d{4}-\d{2}-\d{2}$	Optionally, specify an end date of games to analyze (inclusive), of the form YYYY-MM-DD (UTC).
bin_size	integer >=1	Optionally, specify the rating bin size (for each color).

RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

```
{
  bins* [{
  Array of object:
     rating_min*                    integer                  >=0
                                                             The minimum rating of this bin (inclusive).
     rating_max*                    integer                  >=0
                                                             The maximum rating of this bin (exclusive).
     termination_types* [{
     Array of object:
        termination_type*  enum   ALLOWED:Resignation, DrawAgreement, TimeForfeit,
                                  Checkmate, Stalemate, InsufficientMaterial,
                                  SeventyFiveMoveRule, FivefoldRepetition,
                                  FiftyMoveRule, ThreefoldRepetition, RulesInfraction
                                  The termination type.
        percentage*      number   between 0 and  100
                                  The percentage (0-100) of games with this termination type, in this rating bin.
     }]
  }]
}
```

STATUS CODE - 422: Validation Error

RESPONSE MODEL - application/json

```
{
  detail [{
  Array of object:
     loc*   [string]
     msg*   string
     type*  string
  }]
}
```