# API\_Documentation Documentation

Auto-generated Documentation  $2025\text{-}07\text{-}29\ 17\text{:}48\text{:}55$ 

# Contents

| 1 |     |               |  |   |  |  |  |  |  |  |
|---|-----|---------------|--|---|--|--|--|--|--|--|
|   | 1.1 |               | nentation Statistics                                       |   |  |  |  |  |  |  |
|   | 1.2 | Projec        | t Modules  | 3 |  |  |  |  |  |  |
| 2 | Cod | lo Dog        | umentation   | 1 |  |  |  |  |  |  |
| 4 | 2.1 |               | on   |   |  |  |  |  |  |  |
|   | 2.1 | 2.1.1         | setup_loggers  |   |  |  |  |  |  |  |
|   |     | 2.1.1 $2.1.2$ | 1- 00  |   |  |  |  |  |  |  |
|   |     | 2.1.2         | • • •  |   |  |  |  |  |  |  |
|   |     | 2.1.3 $2.1.4$ | J 1 - 1  |   |  |  |  |  |  |  |
|   |     | 2.1.4 $2.1.5$ | V 1 0 = 1 0=   |   |  |  |  |  |  |  |
|   |     |               | <b>V</b> 1   |   |  |  |  |  |  |  |
|   |     | 2.1.6         | PlayerUpdater.get_particular_player_stats_url              |   |  |  |  |  |  |  |
|   |     | 2.1.7         | PlayerUpdater.get_particular_game_stats_url 6              |   |  |  |  |  |  |  |
|   |     | 2.1.8         | PlayerUpdater.get_required_matches_for_particular_player ( |   |  |  |  |  |  |  |
|   |     | 2.1.9         | PlayerUpdater.compare_and_update                           |   |  |  |  |  |  |  |
|   |     |               | PlayerUpdater.fetch_last_games                             |   |  |  |  |  |  |  |
|   |     |               | PlayerUpdater.populate_leagues                             |   |  |  |  |  |  |  |
|   |     |               | PlayerUpdater.populate_series                              |   |  |  |  |  |  |  |
|   |     |               | PlayerUpdater.populate_tournament                          |   |  |  |  |  |  |  |
|   |     | 2.1.14        | PlayerUpdater.populate_team                                |   |  |  |  |  |  |  |
|   |     |               | PlayerUpdater.populate_player 8                            |   |  |  |  |  |  |  |
|   |     | 2.1.16        | PlayerUpdater.populate_match                               | ) |  |  |  |  |  |  |
|   |     | 2.1.17        | PlayerUpdater.populate_game                                | ) |  |  |  |  |  |  |
|   |     | 2.1.18        | PlayerUpdater.populate_match_result 9                      | ) |  |  |  |  |  |  |
|   |     | 2.1.19        | PlayerUpdater.populate_round_score                         | ) |  |  |  |  |  |  |
|   |     | 2.1.20        | PlayerUpdater.populate_player_result                       | ) |  |  |  |  |  |  |
|   |     | 2.1.21        | PlayerUpdater.populate_player_stats                        | ) |  |  |  |  |  |  |
|   |     | 2.1.22        | PlayerUpdater.populate_stream                              | l |  |  |  |  |  |  |
|   |     | 2.1.23        | PlayerUpdater.main_population 1                            | l |  |  |  |  |  |  |
|   |     | 2.1.24        | run_api_updater  | l |  |  |  |  |  |  |
|   |     | 2.1.25        | get_roster_url 12  | 2 |  |  |  |  |  |  |
|   |     | 2.1.26        | fetch_rosters  | 2 |  |  |  |  |  |  |
|   |     |               | get_player_avg_kills_data                                  | 2 |  |  |  |  |  |  |
|   |     |               | fetch_match_info   | 3 |  |  |  |  |  |  |
|   |     |               | get_margin   |   |  |  |  |  |  |  |
|   |     |               | calculate_odds_kill  |   |  |  |  |  |  |  |
|   |     |               | poisson_probabilities                                      |   |  |  |  |  |  |  |
|   |     |               | create_probability_matrix                                  |   |  |  |  |  |  |  |
|   |     |               | calculate_total_probabilities                              |   |  |  |  |  |  |  |
|   |     |               | calculate_odds_h2h   |   |  |  |  |  |  |  |
|   |     |               | fetch_upcoming_matches                                     |   |  |  |  |  |  |  |
|   |     |               | DatabaseManagerinit  |   |  |  |  |  |  |  |
|   |     |               | DatabaseManager.create_tables                              |   |  |  |  |  |  |  |
|   |     |               | DatabaseManager.check_all_table_exists                     |   |  |  |  |  |  |  |
|   |     |               |  |   |  |  |  |  |  |  |
|   |     |               | DatabaseManager.get_session                                |   |  |  |  |  |  |  |
|   |     |               |  |   |  |  |  |  |  |  |
|   |     |               |  |   |  |  |  |  |  |  |
|   |     |               | DatabaseManager.get_all                                    |   |  |  |  |  |  |  |
|   |     |               | DatabaseManager.update                                     |   |  |  |  |  |  |  |
|   |     |               | DatabaseManager.delete                                     |   |  |  |  |  |  |  |
|   |     | 2.1.45        | DatabaseManager.clear_all_data                             | 3 |  |  |  |  |  |  |

|     | 2.1.46        | DatabaseManager.get_session             |
|-----|---------------|---|
|     | 2.1.47        | get_db                                  |
|     | 2.1.48        | PlayerBase.serialize_birthday 19        |
|     |               | PlayerBase.serialize_modified_at        |
|     |               | pp                                      |
|     |               | dp                                      |
|     |               | wynik                                   |
|     |               | roster_url                              |
|     |               | fetch_matches                           |
|     |               | initialize_api                          |
|     |               | get_margin                              |
|     |               | calculate_odds                          |
|     |               | poisson_probabilities                   |
|     |               | 1 -1                                    |
|     |               | -1 V -                                  |
|     |               | calculate_total_probabilities           |
|     |               | calculate_odds                          |
|     |               | fetch_upcoming_matches                  |
|     |               | test_league_model                       |
|     |               | test_serie_model                        |
|     |               | test_team_model                         |
|     |               | run_migrations_offline                  |
|     |               | run_migrations_online                   |
| 2.2 | Class.        |   |
|     | 2.2.1         | PlayerUpdater         26                |
|     | 2.2.2         | MatchStatuses                           |
|     | 2.2.3         | DatabaseManager                         |
|     | 2.2.4         | MatchResult                             |
|     | 2.2.5         | Game                                    |
|     | 2.2.6         | League                                  |
|     | 2.2.7         | PlayerStats                             |
|     | 2.2.8         | Team                                    |
|     | 2.2.9         | Stream                                  |
|     | 2.2.10        | Player                                  |
|     |               | Serie                                   |
|     | 2.2.12        | RoundScore                              |
|     |               | PlayerResult                            |
|     |               | Tournament                              |
|     |               | Match                                   |
| 2.3 |               | Function                                |
|     | 2.3.1         | upcoming_matches                        |
|     | 2.3.2         | all_players_list                        |
|     | 2.3.3         | add_player_to_team                      |
|     | 2.3.4         | remove_player_from_team                 |
|     | 2.3.4 $2.3.5$ | upcoming_matches_with_rosters_and_stats |
|     | 2.3.6         | match_players_stats                     |
|     | 2.3.7         | upcoming_matches                        |
|     | 2.3.1         | 1 0-                                    |
|     | 2.3.9         | 1 = = = = 50 0                          |
|     |               |   |
|     | 2.3.10        | generate_h2h_data                       |
|     |               | generate_over_under_data                |
|     |               | upcoming_matches                        |
|     |               | optimized_fetch_and_aggregate           |
|     | 2.3.14        | <pre>predict_stats</pre>                |

|     | 2.3.15 | generate_h2h_data 34                    |
|-----|--------|---|
|     | 2.3.16 | <pre>generate_over_under_data</pre>     |
| 2.4 | Get    |   |
|     | 2.4.1  | upcoming_matches                        |
|     | 2.4.2  | all_players_list                        |
|     | 2.4.3  | upcoming_matches_with_rosters_and_stats |
|     | 2.4.4  | match_players_stats                     |
|     | 2.4.5  | upcoming_matches                        |
|     | 2.4.6  | optimized_fetch_and_aggregate           |
|     | 2.4.7  | upcoming_matches                        |
|     | 2.4.8  | optimized_fetch_and_aggregate           |
| 2.5 | Post . | 37                                      |
|     | 2.5.1  | add_player_to_team                      |
|     | 2.5.2  | predict_stats                           |
|     | 2.5.3  | generate_h2h_data 38                    |
|     | 2.5.4  | generate_over_under_data                |
|     | 2.5.5  | predict_stats                           |
|     | 2.5.6  | generate_h2h_data                       |
|     | 2.5.7  | generate_over_under_data                |
| 2.6 | Delete |   |
|     | 2.6.1  | remove_player_from_team                 |
| 2.7 |        | eware                                   |
|     | 2.7.1  | app.middleware 40                       |
|     | 2.7.2  | app.middleware                          |
| 2.8 |        | Inclusion                               |
|     | 2.8.1  | app.router_inclusion                    |
|     | 2.8.2  | app.router_inclusion                    |
|     | 2.8.3  | app.router_inclusion                    |
| 2.9 |        | tic Model                               |
|     | 2.9.1  | LeagueBase                              |
|     | 2.9.2  | SerieBase                               |
|     | 2.9.3  | GameBase                                |
|     | 2.9.4  | PlayerBase                              |
|     | 2.9.5  | PlayerStatsBase                         |
|     | 2.9.6  | PlayerResultBase                        |
|     | 2.9.7  | StreamBase                              |
|     | 2.9.8  | RoundScoreBase                          |
|     | 2.9.9  | MatchResultBase                         |
|     | 2.9.10 | MatchBase                               |
|     | 2.9.11 | TeamBase                                |
|     | 2.9.12 | TournamentBase                          |
|     | 2.9.13 | MatchResultBase                         |
|     |        | PlayerBase                              |
|     |        | StreamBase                              |
|     |        | RoundScoreBase                          |
|     |        | PlayerResultBase                        |
|     |        | MatchBase                               |
|     |        | LeagueBase                              |
|     |        | TeamBase                                |
|     |        | GameBase                                |
|     |        | TournamentBase                          |
|     |        | PlayerStatsBase                         |
|     |        | SerieBase         45                    |

|   | 2.10 | Classmethod                | 45 |
|---|------|----------------------------|----|
|   |      | 2.10.1 PlayerBase.from_orm | 45 |
|   | 2.11 | Metadata                   | 46 |
|   |      | 2.11.1 app                 | 46 |
| 3 | UM   | L Diagrams                 | 46 |
|   | 3.1  | Diagram Analysis           | 46 |
|   | 3.2  | Main Diagram               | 46 |
|   | 3.3  | Additional Diagrams        | 48 |
|   |      | 3.3.1 Sequence Diagram     | 48 |
|   |      | 3.3.2 Component Diagram    | 49 |
| 4 | Cov  | erage Analysis             | 49 |
|   | 4.1  | Function Coverage          | 49 |
|   | 4.2  | Class Coverage             | 49 |
|   | 4.3  | Async Function Coverage    | 49 |
|   | 4.4  | Get Coverage               | 49 |
|   | 4.5  | Post Coverage              | 49 |
|   | 4.6  | Delete Coverage            | 50 |
|   | 4.7  | Middleware Coverage        | 50 |
|   | 4.8  | Router Inclusion Coverage  | 50 |
|   | 4.9  | Pydantic Model Coverage    | 50 |
|   | 4.10 | Classmethod Coverage       | 50 |
|   | 4.11 | Metadata Coverage          | 50 |
| 5 | Con  | aclusion                   | 50 |

Documentation API\_Documentation

# 1 Overview

This document provides comprehensive documentation for **API\_Documentation**. It includes API documentation, code analysis, and coverage statistics.

# 1.1 Documentation Statistics

• Total Items: 145

• Documented Items: 17

• Coverage: 11.7%

• Modules: 37

# 1.2 Project Modules

- api\_updater
- env
- funkcja
- game
- game\_base
- league
- league\_base
- logger\_config
- main
- manager
- match
- match\_base
- match\_result
- match\_result\_base
- player
- player\_base
- player\_result
- player\_result\_base
- player\_stats
- player\_stats\_base
- pydantic\_models
- roboczy
- round\_score
- round\_score\_base

- router
- routers
- serie
- serie\_base
- stream
- stream\_base
- team
- team\_base
- test\_routers
- tests\_models
- tournament
- tournament\_base
- tournaments

# 2 Code Documentation

This section contains detailed documentation for all code elements found in the project.

### 2.1 Function

# 2.1.1 setup\_loggers

• Module: logger\_config

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/logger\_config.py

• Line: 5

# Documentation:

This is some stupid docstring

### Source Code Preview:

```
"""
This is some stupid docstring
"""
timestamp = time.strftime("%Y%m%d-%H%M%S")
```

# 2.1.2 PlayerUpdater.\_\_init\_\_

- Module: api\_updater
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api\_updater.py
- Line: 32

Source Code Preview:

```
self.headers = {
    "Accept": "application/json",
    "Authorization": f"Bearer {api_token}"
}
self.database_manager = DatabaseManager(user=user, password=password, host=host, port=port
}
```

- 2.1.3 PlayerUpdater.make\_request
  - Module: api\_updater
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api\_updater.py
  - Line: 40

**Documentation:** No documentation available

Source Code Preview:

```
response = requests.get(url=url, headers=self.headers, params=params, timeout=10)
time.sleep(0.4)
PlayerUpdater.REQUEST_COUNTER += 1
response.raise_for_status()
info_logger.info(f"Total requests made to Pandascore API: {PlayerUpdater.REQUEST_COUNTER}
```

- 2.1.4 PlayerUpdater.get\_upcoming\_matches
  - Module: api\_updater
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api\_updater.py
  - Line: 48

**Documentation:** No documentation available

```
params = {
    "filter[future]": "true",
    "sort": "begin_at",
    "per_page": 100,
    "page": 1
```

- ${\bf 2.1.5} \quad {\tt PlayerUpdater.get\_particular\_team\_url}$ 
  - Module: api\_updater
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api\_updater.py
  - Line: 70

### Source Code Preview:

return f'https://api.pandascore.co/teams/{team\_id}'

- 2.1.6 PlayerUpdater.get\_particular\_player\_stats\_url
  - Module: api\_updater
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api\_updater.py
  - Line: 73

**Documentation:** No documentation available

### Source Code Preview:

return f"https://api.pandascore.co/csgo/players/{player\_id}/stats"

- 2.1.7 PlayerUpdater.get\_particular\_game\_stats\_url
  - Module: api\_updater
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api\_updater.py
  - Line: 76

**Documentation:** No documentation available

# Source Code Preview:

return f'https://api.pandascore.co/csgo/games/{game\_id}'

- 2.1.8 PlayerUpdater.get\_required\_matches\_for\_particular\_player
  - Module: api\_updater
  - $\bullet \ \ File: / Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api\_updater.py$
  - Line: 79

**Documentation:** No documentation available

# Source Code Preview:

return f"https://api.pandascore.co/players/{player\_id}/matches?per\_page{required\_amount\_

- 2.1.9 PlayerUpdater.compare\_and\_update
  - Module: api\_updater
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api\_updater.py
  - Line: 82

Source Code Preview:

```
updated = False
for key, value in new_data.items():
    if getattr(existing_data, key) != value:
        setattr(existing_data, key, value)
        updated = True
```

- 2.1.10 PlayerUpdater.fetch\_last\_games
  - Module: api\_updater
  - $\bullet \ \ File: \ / Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api\_updater.py$
  - Line: 90

**Documentation:** No documentation available

Source Code Preview:

```
games_collected: List[int] = []
page = 1
while len(games_collected) < total_games:
    matches_url = self.get_required_matches_for_particular_player(player_id,</pre>
```

- 2.1.11 PlayerUpdater.populate\_leagues
  - Module: api\_updater
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api\_updater.py
  - Line: 142

**Documentation:** No documentation available

```
league_id: int = league_data.get('id')
is_created = False
try:
```

- 2.1.12 PlayerUpdater.populate\_series
  - Module: api\_updater
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api\_updater.py
  - Line: 189

Source Code Preview:

```
serie_id: int = series_data.get('id')
is_created = False

try:
    serie = session.query(Serie).filter_by(serie_id=serie_id).one_or_none()
```

- 2.1.13 PlayerUpdater.populate\_tournament
  - Module: api\_updater
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api\_updater.py
  - Line: 242

**Documentation:** No documentation available

Source Code Preview:

```
tournament_id: int = match_data.get('tournament').get('id')
tournament_data = match_data.get('tournament')
is_created = False
try:
```

- 2.1.14 PlayerUpdater.populate\_team
  - Module: api\_updater
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api\_updater.py
  - Line: 319

**Documentation:** No documentation available

```
team_id = team_data.get('id')
print(f"players: {team_data}")
is_created = False
```

- 2.1.15 PlayerUpdater.populate\_player
  - Module: api\_updater
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api\_updater.py
  - Line: 392

Source Code Preview:

```
player_id = player_data.get('id')
is_created = False

try:
    player = session.query(Player).filter_by(player_id=player_id).one_or_none()
```

- 2.1.16 PlayerUpdater.populate\_match
  - Module: api\_updater
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api\_updater.py
  - Line: 450

**Documentation:** No documentation available

Source Code Preview:

```
match_id = match_data.get('id')
is_created = False

try:
    match = session.query(Match).filter_by(match_id=match_id).one_or_none()
```

- 2.1.17 PlayerUpdater.populate\_game
  - Module: api\_updater
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api\_updater.py
  - Line: 554

**Documentation:** No documentation available

```
game_id = game_data.get('id')
is_created = False

try:
    game = session.query(Game).filter_by(game_id=game_id).one_or_none()
```

- 2.1.18 PlayerUpdater.populate\_match\_result
  - Module: api\_updater
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api\_updater.py
  - Line: 608

Source Code Preview:

```
match_result_id = match_result_data.get('id')
is_created = False

try:
    match_result = session.query(MatchResult).filter_by(id=match_result_id).one_or_none()
```

- 2.1.19 PlayerUpdater.populate\_round\_score
  - Module: api\_updater
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api\_updater.py
  - Line: 647

**Documentation:** No documentation available

Source Code Preview:

```
if not game_id:
    error_logger.error("No game_id provided for round scores.")
    return

try:
```

- 2.1.20 PlayerUpdater.populate\_player\_result
  - Module: api\_updater
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api\_updater.py
  - Line: 712

**Documentation:** No documentation available

```
if not game_id:
    error_logger.error("No game_id provided for player results.")
    return

for player_data in players_result_data:
```

- 2.1.21 PlayerUpdater.populate\_player\_stats
  - Module: api\_updater
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api\_updater.py
  - Line: 787

#### Source Code Preview:

```
try:
    player_stats_data = self.make_request(url=self.get_particular_player_stats_url(player_stats_data = player_stats_data.json()

# Map player_stats_data to the PlayerStats model
```

#### 2.1.22 PlayerUpdater.populate\_stream

- Module: api\_updater
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api\_updater.py
- Line: 862

**Documentation:** No documentation available

### Source Code Preview:

```
stream_id: int = stream_data.get('id')
is_created = False

try:
    stream = session.query(Stream).filter_by(id=stream_id).one_or_none()
```

# 2.1.23 PlayerUpdater.main\_population

- Module: api\_updater
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api\_updater.py
- Line: 908

**Documentation:** No documentation available

#### Source Code Preview:

```
with self.database_manager.get_session() as session:
    teams_ids = set()
    processed_tournaments = set()
    processed_matches = set()
    processed_teams = set()
```

# 2.1.24 run\_api\_updater

- Module: api\_updater
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api\_updater.py
- Line: 1056

### Source Code Preview:

```
start = time.time()
info_logger.info(f"API Updater start: {start}")
try:
    player_updater = PlayerUpdater(api_token=pandascore_api_token, user=db_user, password=db_upcoming_matches = player_updater.get_upcoming_matches()
```

# 2.1.25 get\_roster\_url

- Module: test\_routers
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/test\_routers.py
- Line: 82

**Documentation:** No documentation available

#### Source Code Preview:

```
return f"https://api.pandascore.co/tournaments/{tournament_id}/rosters"
```

#### 2.1.26 fetch\_rosters

- Module: test\_routers
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/test\_routers.py
- Line: 86

**Documentation:** No documentation available

# Source Code Preview:

```
response = requests.get(get_roster_url(tournament_id), headers=HEADERS)
response.raise_for_status()
return response.json()
```

### 2.1.27 get\_player\_avg\_kills\_data

- Module: test\_routers
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/test\_routers.py
- Line: 91

# 2.1.28 fetch\_match\_info

- Module: test\_routers
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/test\_routers.py
- Line: 138

**Documentation:** No documentation available

# Source Code Preview:

```
match_info = {
    "match_id": match.match_id,
    "teams": []
}
```

# 2.1.29 get\_margin

- Module: routers
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/routers.py
- Line: 23

**Documentation:** No documentation available

# Source Code Preview:

```
margin_str = data.get("margin", None)
margin_error = None

if margin_str is None:
    margin_error = "Margin value is missing."
```

### 2.1.30 calculate\_odds\_kill

- Module: routers
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/routers.py
- Line: 39

```
absolute_kills_value = int(kills)
threshold_kills = absolute_kills_value + 0.5
poisson_distribution = poisson.cdf(absolute_kills_value, kills)
survival_probability = 1 - poisson_distribution
odds1 = 1 / (
```

# 2.1.31 poisson\_probabilities

• Module: routers

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/routers.py

• Line: 62

#### Documentation:

Pre-compute Poisson probabilities for the range of kills using numpy for efficiency.

#### Source Code Preview:

```
"""Pre-compute Poisson probabilities for the range of kills using numpy for efficiency.""" return poisson.pmf(np.arange(MAX_KILLS + 1), lam)
```

# 2.1.32 create\_probability\_matrix

• Module: routers

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/routers.py

• Line: 67

# **Documentation:**

Use numpy to efficiently create a probability matrix for two players.

# Source Code Preview:

```
"""Use numpy to efficiently create a probability matrix for two players.""" return np.outer(player_a_probs, player_b_probs)
```

# 2.1.33 calculate\_total\_probabilities

• Module: routers

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/routers.py

• Line: 72

#### Documentation:

Calculate total probabilities for A wins, draw, and B wins using numpy.

```
"""Calculate total probabilities for A wins, draw, and B wins using numpy."""
prob_b_wins = np.sum(np.triu(prob_matrix, 1))
prob_draw = np.sum(np.diag(prob_matrix))
prob_a_wins = np.sum(np.tril(prob_matrix, -1))
return prob_a_wins, prob_draw, prob_b_wins
```

# 2.1.34 calculate\_odds\_h2h

- Module: routers
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/routers.py
- Line: 80

#### Documentation:

Convert probabilities to odds.

#### Source Code Preview:

```
"""Convert probabilities to odds."""
if prob_draw is None:
    a_prob_without_draw = prob_a / (prob_a + prob_b)
    b_prob_without_draw = prob_b / (prob_b + prob_a)
```

#### 2.1.35 fetch\_upcoming\_matches

- Module: routers
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/routers.py
- Line: 103

**Documentation:** No documentation available

# Source Code Preview:

```
global REQUEST_COUNT
params = initial_params.copy() if initial_params else {}
page = 1
aggregated_results = []
while True:
```

# 2.1.36 DatabaseManager.\_\_init\_\_

- Module: manager
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/database/manager.py
- Line: 20

#### Source Code Preview:

```
self.database_url = f"postgresql://{user}:{password}@{host}:{port}/{db_name}"
self.engine = create_engine(self.database_url)
self.Session = sessionmaker(bind=self.engine)
```

### 2.1.37 DatabaseManager.create\_tables

- Module: manager
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/database/manager.py
- Line: 25

**Documentation:** No documentation available

#### Source Code Preview:

Base.metadata.create\_all(self.engine)

# ${\bf 2.1.38} \quad {\tt DatabaseManager.check\_all\_table\_exists}$

- Module: manager
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/database/manager.py
- Line: 28

**Documentation:** No documentation available

### Source Code Preview:

```
inspector = inspect(self.engine)
insp = reflection.Inspector.from_engine(self.engine)
print("Tables in the database: ", insp.get_table_names())
existing_tables = inspector.get_table_names()
missing_tables = set(required_tables) - set(existing_tables)
```

# 2.1.39 DatabaseManager.get\_session

- Module: manager
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/database/manager.py
- Line: 39

**Documentation:** No documentation available

```
return self.Session()
```

# 2.1.40 DatabaseManager.add

• Module: manager

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/database/manager.py

• Line: 42

# Documentation:

Save an instance of a model to the database

# Source Code Preview:

```
Save an instance of a model to the database
"""
with self.get_session() as session:
    session.add(instance)
```

# 2.1.41 DatabaseManager.get

• Module: manager

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/database/manager.py

• Line: 52

### Documentation:

Fetch a single instance of a model by its ID.

### Source Code Preview:

```
"""
Fetch a single instance of a model by its ID.
"""
with self.get_session() as session:
    try:
```

# 2.1.42 DatabaseManager.get\_all

• Module: manager

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/database/manager.py

• Line: 62

# Documentation:

Fetch all instances of a model

```
"""
Fetch all instances of a model
"""
with self.get_session() as session:
    return session.query(model_class).all()
```

# 2.1.43 DatabaseManager.update

- Module: manager
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/database/manager.py
- Line: 69

# **Documentation:**

Update a single instance of a model by its ID

#### Source Code Preview:

```
"""
Update a single instance of a model by its ID
"""
with self.get_session() as session:
   object = session.query(model_class).filter(model_class.id == object_id).one()
```

# 2.1.44 DatabaseManager.delete

- Module: manager
- $\bullet \ \ File: / Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/database/manager.py \\$
- Line: 80

# **Documentation:**

Delete a single instance of a model by its ID

# Source Code Preview:

```
Delete a single instance of a model by its ID
"""
with self.get_session() as session:
try:
```

### 2.1.45 DatabaseManager.clear\_all\_data

- Module: manager
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/database/manager.py
- Line: 93

Source Code Preview:

```
with self.get_session() as session:
    meta = MetaData()
    meta.reflect(bind=self.engine)
    for table in reversed(meta.sorted_tables):
        session.execute(table.delete())
```

- 2.1.46 DatabaseManager.get\_session
  - Module: manager
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/database/manager.py
  - Line: 102

**Documentation:** No documentation available

Source Code Preview:

```
session = self.Session()
try:
    yield session
    session.commit()
except:
```

- 2.1.47 get\_db
  - Module: manager
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/database/manager.py
  - Line: 117

**Documentation:** No documentation available

Source Code Preview:

```
with database_manager.get_session() as db:
    yield db
```

- 2.1.48 PlayerBase.serialize\_birthday
  - Module: player\_base
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/schemas/player\_base.py
  - Line: 22

```
if birthday is not None:
    return birthday.strftime('%Y-%m-%d')
return None
```

# 2.1.49 PlayerBase.serialize\_modified\_at

- Module: player\_base
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/schemas/player\_base.py
- Line: 28

**Documentation:** No documentation available

#### Source Code Preview:

```
if modified_at is not None:
    return modified_at.isoformat()
return None
```

# 2.1.50 pp

- Module: funkcja
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/temporary/funkcja.py
- Line: 6

**Documentation:** No documentation available

# Source Code Preview:

```
return (srednia ** k / (factorial(k))) * exp(-srednia)
```

# 2.1.51 dp

- Module: funkcja
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/temporary/funkcja.py
- Line: 10

**Documentation:** No documentation available

```
p = 0
for m in range(k + 1, k + 30):
    p = p + pp(srednia, m)
return p
```

# 2.1.52 wynik

• Module: funkcja

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/temporary/funkcja.py

• Line: 17

**Documentation:** No documentation available

### Source Code Preview:

```
zaw = list(srednie.keys())
s = 0
for z in zaw:
    s = s + srednie[z]
p = {}
```

# 2.1.53 roster\_url

- Module: tournaments
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/temporary/tournaments.p
- Line: 7

**Documentation:** No documentation available

#### Source Code Preview:

```
return f"https://api.pandascore.co/tournaments/{tournament_id}/rosters"
```

### 2.1.54 fetch\_matches

- Module: roboczy
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/temporary/roboczy.py
- Line: 10

**Documentation:** No documentation available

```
global REQUEST_COUNT
headers = {
    "Accept": "application/json",
    "Authorization": f"Bearer {api_token}"
}
```

# 2.1.55 initialize\_api

• Module: main

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api/main.py

• Line: 10

**Documentation:** No documentation available

### Source Code Preview:

```
app = FastAPI(
    root_path="/api/v1"
)
app.add_middleware(
```

# 2.1.56 get\_margin

• Module: router

 $\bullet \ \ File: / Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api/cs2/router.py$ 

• Line: 22

**Documentation:** No documentation available

#### Source Code Preview:

```
margin_str = data.get("margin", None)
margin_error = None

if margin_str is None:
    margin_error = "Margin value is missing."
```

# 2.1.57 calculate\_odds

• Module: router

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api/cs2/router.py

• Line: 38

**Documentation:** No documentation available

```
absolute_kills_value = int(kills)
threshold_kills = absolute_kills_value + 0.5
poisson_distribution = poisson.cdf(absolute_kills_value, kills)
survival_probability = 1 - poisson_distribution
odds1 = 1 / (
```

# 2.1.58 poisson\_probabilities

• Module: router

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api/cs2/router.py

• Line: 61

#### Documentation:

Pre-compute Poisson probabilities for the range of kills using numpy for efficiency.

# Source Code Preview:

```
"""Pre-compute Poisson probabilities for the range of kills using numpy for efficiency.""" return poisson.pmf(np.arange(MAX_KILLS + 1), lam)
```

### 2.1.59 create\_probability\_matrix

• Module: router

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api/cs2/router.py

• Line: 66

# **Documentation:**

Use numpy to efficiently create a probability matrix for two players.

### Source Code Preview:

```
"""Use numpy to efficiently create a probability matrix for two players.""" return np.outer(player_a_probs, player_b_probs)
```

# 2.1.60 calculate\_total\_probabilities

• Module: router

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api/cs2/router.py

• Line: 71

#### Documentation:

Calculate total probabilities for A wins, draw, and B wins using numpy.

```
"""Calculate total probabilities for A wins, draw, and B wins using numpy."""
prob_b_wins = np.sum(np.triu(prob_matrix, 1))
prob_draw = np.sum(np.diag(prob_matrix))
prob_a_wins = np.sum(np.tril(prob_matrix, -1))
return prob_a_wins, prob_draw, prob_b_wins
```

### 2.1.61 calculate\_odds

- Module: router
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api/cs2/router.py
- Line: 79

# Documentation:

Convert probabilities to odds.

#### Source Code Preview:

```
"""Convert probabilities to odds."""
if prob_draw is None:
    a_prob_without_draw = prob_a / (prob_a + prob_b)
    b_prob_without_draw = prob_b / (prob_b + prob_a)
```

# 2.1.62 fetch\_upcoming\_matches

- Module: router
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api/cs2/router.py
- Line: 102

**Documentation:** No documentation available

# Source Code Preview:

```
global REQUEST_COUNT
params = initial_params.copy() if initial_params else {}
page = 1
aggregated_results = []
while True:
```

# 2.1.63 test\_league\_model

- Module: tests\_models
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/tests/tests\_models.py
- Line: 12

**Documentation:** No documentation available

```
league_data = {
    "id": 1,
    "name": "Test League",
    "slug": "test-league",
    "modified_at": datetime.utcnow(),
```

#### 2.1.64 test\_serie\_model

- Module: tests\_models
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/tests/tests\_models.py
- Line: 38

**Documentation:** No documentation available

### Source Code Preview:

```
serie_data = {
    "id": 1,
    "begin_at": datetime.utcnow(),
    "end_at": datetime.utcnow(),
    "full_name": "Test Serie",
```

### 2.1.65 test\_team\_model

- Module: tests\_models
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/tests/tests\_models.py
- Line: 59

**Documentation:** No documentation available

#### Source Code Preview:

```
team_data = {
   "id": 1,
   "name": "Test Team",
   "slug": "test-team",
   "modified_at": datetime.utcnow(),
```

# 2.1.66 run\_migrations\_offline

- Module: env
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/alembic/env.py
- Line: 34

#### **Documentation:**

Run migrations in 'offline' mode.

This configures the context with just a URL and not an Engine, though an Engine is acceptable here as well. By skipping the Engine creation, we don't even need a DBAPI to be available.

Calls to context.execute() here emit the given string to the script output.

API Documentation

### Source Code Preview:

```
"""Run migrations in 'offline' mode.
```

This configures the context with just a URL and not an Engine, though an Engine is acceptable here as well. By skipping the Engine creation,

# 2.1.67 run\_migrations\_online

• Module: env

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/alembic/env.py

• Line: 58

#### Documentation:

Run migrations in 'online' mode.

In this scenario, we need to create an Engine and associate a connection with the context.

### Source Code Preview:

```
"""Run migrations in 'online' mode.
```

In this scenario, we need to create an Engine and associate a connection with the context.

### 2.2 Class

# 2.2.1 PlayerUpdater

• Module: api\_updater

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api\_updater.py

• Line: 28

**Documentation:** No documentation available

### 2.2.2 MatchStatuses

• Module: test\_routers

 $\bullet \ \ File: / Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/test\_routers.py$ 

• Line: 18

# 2.2.3 DatabaseManager

• Module: manager

• Line: 19

**Documentation:** No documentation available

# 2.2.4 MatchResult

• Module: match\_result

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/database/models/match\_r

• Line: 8

**Documentation:** No documentation available

#### 2.2.5 Game

• Module: game

• Line: 7

**Documentation:** No documentation available

# **2.2.6** League

• Module: league

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/database/models/league.

• Line: 6

**Documentation:** No documentation available

# 2.2.7 PlayerStats

• Module: player\_stats

 $\bullet \ \ File: / Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/database/models/player\_applesseries. \\$ 

• Line: 6

**Documentation:** No documentation available

#### 2.2.8 Team

• Module: team

• Line: 7

## 2.2.9 Stream

• Module: stream

 $\bullet \ \ File: / Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/database/models/stream.$ 

• Line: 7

**Documentation:** No documentation available

# 2.2.10 Player

• Module: player

 $\bullet \ \ File: / Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/database/models/player.$ 

• Line: 6

**Documentation:** No documentation available

# **2.2.11** Serie

• Module: serie

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/database/models/serie.p

• Line: 6

**Documentation:** No documentation available

# 2.2.12 RoundScore

• Module: round\_score

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/database/models/round\_s

• Line: 7

**Documentation:** No documentation available

# 2.2.13 PlayerResult

• Module: player\_result

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/database/models/player\_

• Line: 7

Documentation API\_Documentation

#### 2.2.14 Tournament

• Module: tournament

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/database/models/tournam

• Line: 9

**Documentation:** No documentation available

### 2.2.15 Match

• Module: match

• Line: 8

**Documentation:** No documentation available

# 2.3 Async Function

# 2.3.1 upcoming\_matches

• Module: test\_routers

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/test\_routers.py

• Line: 32

**Documentation:** No documentation available

#### Source Code Preview:

```
matches = db.query(Match).where(Match.status == MatchStatuses.NOT_STARTED.value).join(Match.
if not matches:
    raise HTTPException(status_code=404, detail="No upcoming matches found")
```

# 2.3.2 all\_players\_list

• Module: test\_routers

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/test\_routers.py

• Line: 42

```
try:
    players = db.query(Player).all()
    if not players:
        raise HTTPException(status_code=404, detail="No players found")
    return players
```

# 2.3.3 add\_player\_to\_team

- Module: test\_routers
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/test\_routers.py
- Line: 53

**Documentation:** No documentation available

#### Source Code Preview:

```
team = db.query(Team).filter(Team.team_id == team_id).first()
if not team:
    raise HTTPException(status_code=404, detail="Team not found")
player = db.query(Player).filter(Player.player_id == player_id).first()
if not player:
```

# 2.3.4 remove\_player\_from\_team

- Module: test\_routers
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/test\_routers.py
- Line: 68

**Documentation:** No documentation available

# Source Code Preview:

```
team = db.query(Team).filter(Team.team_id == team_id).first()
if not team:
    raise HTTPException(status_code=404, detail="Team not found")
player = db.query(Player).filter(Player.player_id == player_id).first()
if not player:
```

#### 2.3.5 upcoming\_matches\_with\_rosters\_and\_stats

- Module: test\_routers
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/test\_routers.py
- Line: 211

```
match_id: int = None,
    x_maps: int = Query(..., gt=0, description="Number of recent maps to consider for statis
    db: Session = Depends(get_db)):
if match_id:
    matches = db.query(Match).filter(Match.match_id == match_id).all()
```

# 2.3.6 match\_players\_stats

- Module: test\_routers
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/test\_routers.py
- Line: 239

**Documentation:** No documentation available

#### Source Code Preview:

```
match = db.query(Match).filter(Match.match_id == id).one_or_none()
if not match:
    raise HTTPException(status_code=404, detail="Match not found")
```

### 2.3.7 upcoming\_matches

- Module: routers
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/routers.py
- Line: 129

**Documentation:** No documentation available

# Source Code Preview:

```
api_token = os.getenv("PANDASCORE_API_TOKEN")
if not api_token:
    raise HTTPException(status_code=500, detail="API token is missing")
url = 'https://api.pandascore.co/csgo/matches/upcoming'
```

### 2.3.8 optimized\_fetch\_and\_aggregate

- Module: routers
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/routers.py
- Line: 152

```
start = time.time()
global REQUEST_COUNT
player_games = defaultdict(list)
player_details = defaultdict(lambda: {"kills": [], "headshots": [], "rounds": []})
unique_game_ids = set()
```

# 2.3.9 predict\_stats

- Module: routers
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/routers.py
- Line: 312

**Documentation:** No documentation available

#### Source Code Preview:

```
data = await request.json()
players_data = data.get("players", [])
teams_data = data.get("teams", [])
sum_kills_team1 = float(data.get("sum_kills_team1", 0))
sum_kills_team2 = float(data.get("sum_kills_team2", 0))
```

# 2.3.10 generate\_h2h\_data

- Module: routers
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/routers.py
- Line: 360

**Documentation:** No documentation available

# Source Code Preview:

```
data = await request.json()
margin = data.get("margin", 1.08)  # Default margin
players_data = data.get("players")
if not players_data or not margin:
    raise HTTPException(status_code=400, detail="Missing or invalid data in the request")
```

#### 2.3.11 generate\_over\_under\_data

- Module: routers
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/routers.py
- Line: 393

```
try:
    data = await request.json()
    margin, margin_error = get_margin(data)
    if margin_error:
        return JSONResponse(content={"margin_error": margin_error}, status_code=400)
```

# 2.3.12 upcoming\_matches

- Module: router
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api/cs2/router.py
- Line: 128

**Documentation:** No documentation available

#### Source Code Preview:

```
api_token = os.getenv("PANDASCORE_API_TOKEN")
if not api_token:
    raise HTTPException(status_code=500, detail="API token is missing")
url = 'https://api.pandascore.co/csgo/matches/upcoming'
```

# 2.3.13 optimized\_fetch\_and\_aggregate

- Module: router
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api/cs2/router.py
- Line: 151

**Documentation:** No documentation available

# Source Code Preview:

```
start = time.time()
global REQUEST_COUNT
player_games = defaultdict(list)
player_details = defaultdict(lambda: {"kills": [], "headshots": [], "rounds": []})
unique_game_ids = set()
```

#### 2.3.14 predict\_stats

- Module: router
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api/cs2/router.py
- Line: 311

#### Source Code Preview:

```
data = await request.json()
players_data = data.get("players", [])
sum_kills_team1 = float(data.get("sum_kills_team1", 0))
sum_kills_team2 = float(data.get("sum_kills_team2", 0))
predicted_kills_team1_map1 = float(data.get("predicted_kills_team1_map1", 0)) / 2
```

## 2.3.15 generate\_h2h\_data

- Module: router
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api/cs2/router.py
- Line: 358

**Documentation:** No documentation available

#### Source Code Preview:

```
data = await request.json()
margin = data.get("margin", 1.08)  # Default margin
players_data = data.get("players")
if not players_data or not margin:
    raise HTTPException(status_code=400, detail="Missing or invalid data in the request")
```

#### 2.3.16 generate\_over\_under\_data

- Module: router
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api/cs2/router.py
- Line: 391

**Documentation:** No documentation available

## Source Code Preview:

```
try:
    data = await request.json()
    margin, margin_error = get_margin(data)
    if margin_error:
        return JSONResponse(content={"margin_error": margin_error}, status_code=400)
```

## 2.4 Get

## 2.4.1 upcoming\_matches

- Module: test\_routers
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/test\_routers.py
- Line: 32

#### Source Code Preview:

```
matches = db.query(Match).where(Match.status == MatchStatuses.NOT_STARTED.value).join(Match.
if not matches:
    raise HTTPException(status_code=404, detail="No upcoming matches found")
```

#### 2.4.2 all\_players\_list

- Module: test\_routers
- $\bullet \ \ File: / Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/test\_routers.py$
- Line: 42

**Documentation:** No documentation available

#### Source Code Preview:

```
try:
    players = db.query(Player).all()
    if not players:
        raise HTTPException(status_code=404, detail="No players found")
    return players
```

- 2.4.3 upcoming\_matches\_with\_rosters\_and\_stats
  - Module: test\_routers
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/test\_routers.py
  - Line: 211

**Documentation:** No documentation available

```
match_id: int = None,
    x_maps: int = Query(..., gt=0, description="Number of recent maps to consider for statis
    db: Session = Depends(get_db)):
if match_id:
    matches = db.query(Match).filter(Match.match_id == match_id).all()
```

- 2.4.4 match\_players\_stats
  - Module: test\_routers
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/test\_routers.py
  - Line: 239

#### Source Code Preview:

```
match = db.query(Match).filter(Match.match_id == id).one_or_none()
if not match:
    raise HTTPException(status_code=404, detail="Match not found")
```

#### 2.4.5 upcoming\_matches

- Module: routers
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/routers.py
- Line: 129

**Documentation:** No documentation available

## Source Code Preview:

```
api_token = os.getenv("PANDASCORE_API_TOKEN")
if not api_token:
    raise HTTPException(status_code=500, detail="API token is missing")
url = 'https://api.pandascore.co/csgo/matches/upcoming'
```

## 2.4.6 optimized\_fetch\_and\_aggregate

- Module: routers
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/routers.py
- Line: 152

**Documentation:** No documentation available

#### Source Code Preview:

```
start = time.time()
global REQUEST_COUNT
player_games = defaultdict(list)
player_details = defaultdict(lambda: {"kills": [], "headshots": [], "rounds": []})
unique_game_ids = set()
```

## 2.4.7 upcoming\_matches

- Module: router
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api/cs2/router.py
- Line: 128

Source Code Preview:

```
api_token = os.getenv("PANDASCORE_API_TOKEN")
if not api_token:
    raise HTTPException(status_code=500, detail="API token is missing")
url = 'https://api.pandascore.co/csgo/matches/upcoming'
```

- 2.4.8 optimized\_fetch\_and\_aggregate
  - Module: router
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api/cs2/router.py
  - Line: 151

**Documentation:** No documentation available

Source Code Preview:

```
start = time.time()
global REQUEST_COUNT
player_games = defaultdict(list)
player_details = defaultdict(lambda: {"kills": [], "headshots": [], "rounds": []})
unique_game_ids = set()
```

#### 2.5 Post

- 2.5.1 add\_player\_to\_team
  - Module: test\_routers
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/test\_routers.py
  - Line: 53

**Documentation:** No documentation available

```
team = db.query(Team).filter(Team.team_id == team_id).first()
if not team:
    raise HTTPException(status_code=404, detail="Team not found")
player = db.query(Player).filter(Player.player_id == player_id).first()
if not player:
```

- 2.5.2 predict\_stats
  - Module: routers
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/routers.py
  - Line: 312

Source Code Preview:

```
data = await request.json()
players_data = data.get("players", [])
teams_data = data.get("teams", [])
sum_kills_team1 = float(data.get("sum_kills_team1", 0))
sum_kills_team2 = float(data.get("sum_kills_team2", 0))
```

#### 2.5.3 generate\_h2h\_data

- Module: routers
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/routers.py
- Line: 360

**Documentation:** No documentation available

Source Code Preview:

```
data = await request.json()
margin = data.get("margin", 1.08)  # Default margin
players_data = data.get("players")
if not players_data or not margin:
    raise HTTPException(status_code=400, detail="Missing or invalid data in the request")
```

- 2.5.4 generate\_over\_under\_data
  - Module: routers
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/routers.py
  - Line: 393

**Documentation:** No documentation available

```
try:
    data = await request.json()
    margin, margin_error = get_margin(data)
    if margin_error:
        return JSONResponse(content={"margin_error": margin_error}, status_code=400)
```

- 2.5.5 predict\_stats
  - Module: router
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api/cs2/router.py
  - Line: 311

Source Code Preview:

```
data = await request.json()
players_data = data.get("players", [])
sum_kills_team1 = float(data.get("sum_kills_team1", 0))
sum_kills_team2 = float(data.get("sum_kills_team2", 0))
predicted_kills_team1_map1 = float(data.get("predicted_kills_team1_map1", 0)) / 2
```

## 2.5.6 generate\_h2h\_data

- Module: router
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api/cs2/router.py
- Line: 358

**Documentation:** No documentation available

Source Code Preview:

```
data = await request.json()
margin = data.get("margin", 1.08)  # Default margin
players_data = data.get("players")
if not players_data or not margin:
    raise HTTPException(status_code=400, detail="Missing or invalid data in the request")
```

## 2.5.7 generate\_over\_under\_data

- Module: router
- File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api/cs2/router.py
- Line: 391

**Documentation:** No documentation available

Source Code Preview:

```
try:
    data = await request.json()
    margin, margin_error = get_margin(data)
    if margin_error:
        return JSONResponse(content={"margin_error": margin_error}, status_code=400)
```

#### 2.6 Delete

- 2.6.1 remove\_player\_from\_team
  - Module: test\_routers
  - File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/test\_routers.py
  - Line: 68

## Source Code Preview:

```
team = db.query(Team).filter(Team.team_id == team_id).first()
if not team:
    raise HTTPException(status_code=404, detail="Team not found")
player = db.query(Player).filter(Player.player_id == player_id).first()
if not player:
```

## 2.7 Middleware

## 2.7.1 app.middleware

• Module: main

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/main.py

• Line: 13

**Documentation:** No documentation available

## 2.7.2 app.middleware

• Module: main

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api/main.py

• Line: 15

**Documentation:** No documentation available

## 2.8 Router Inclusion

## 2.8.1 app.router\_inclusion

• Module: main

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/main.py

• Line: 21

**Documentation:** No documentation available

## 2.8.2 app.router\_inclusion

• Module: main

 $\bullet \ \ File: \ / Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/main.py$ 

• Line: 22

**Documentation:** No documentation available

## 2.8.3 app.router\_inclusion

• Module: main

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api/main.py

• Line: 23

**Documentation:** No documentation available

# 2.9 Pydantic Model

## 2.9.1 LeagueBase

• Module: pydantic\_models

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/pydantic\_models.py

• Line: 7

**Documentation:** No documentation available

#### 2.9.2 SerieBase

• Module: pydantic\_models

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/pydantic\_models.py

• Line: 17

**Documentation:** No documentation available

#### 2.9.3 GameBase

• Module: pydantic\_models

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/pydantic\_models.py

• Line: 33

**Documentation:** No documentation available

## 2.9.4 PlayerBase

• Module: pydantic\_models

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/pydantic\_models.py

• Line: 49

**Documentation:** No documentation available

## 2.9.5 PlayerStatsBase

• Module: pydantic\_models

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/pydantic\_models.py

• Line: 64

**Documentation:** No documentation available

## 2.9.6 PlayerResultBase

• Module: pydantic\_models

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/pydantic\_models.py

• Line: 110

**Documentation:** No documentation available

#### 2.9.7 StreamBase

• Module: pydantic\_models

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/pydantic\_models.py

• Line: 129

**Documentation:** No documentation available

## 2.9.8 RoundScoreBase

• Module: pydantic\_models

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/pydantic\_models.py

• Line: 140

**Documentation:** No documentation available

## 2.9.9 MatchResultBase

• Module: pydantic\_models

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/pydantic\_models.py

• Line: 150

**Documentation:** No documentation available

#### 2.9.10 MatchBase

• Module: pydantic\_models

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/pydantic\_models.py

• Line: 163

## 2.9.11 TeamBase

• Module: pydantic\_models

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/pydantic\_models.py

• Line: 189

**Documentation:** No documentation available

## 2.9.12 TournamentBase

• Module: pydantic\_models

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/pydantic\_models.py

• Line: 202

**Documentation:** No documentation available

## 2.9.13 MatchResultBase

• Module: match\_result\_base

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/schemas/match\_result\_ba

• Line: 6

**Documentation:** No documentation available

## 2.9.14 PlayerBase

• Module: player\_base

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/schemas/player\_base.py

• Line: 7

**Documentation:** No documentation available

## 2.9.15 StreamBase

• Module: stream\_base

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/schemas/stream\_base.py

• Line: 6

**Documentation:** No documentation available

#### 2.9.16 RoundScoreBase

• Module: round\_score\_base

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/schemas/round\_score\_bas

• Line: 6

**Documentation:** No documentation available

## 2.9.17 PlayerResultBase

• Module: player\_result\_base

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/schemas/player\_result\_b

• Line: 6

**Documentation:** No documentation available

#### 2.9.18 MatchBase

• Module: match\_base

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/schemas/match\_base.py

• Line: 7

**Documentation:** No documentation available

## 2.9.19 LeagueBase

• Module: league\_base

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/schemas/league\_base.py

• Line: 7

**Documentation:** No documentation available

## 2.9.20 TeamBase

• Module: team\_base

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/schemas/team\_base.py

• Line: 7

**Documentation:** No documentation available

#### 2.9.21 GameBase

• Module: game\_base

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/schemas/game\_base.py

• Line: 7

#### 2.9.22 TournamentBase

• Module: tournament\_base

 $\bullet \ \ File: / Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/schemas/tournament\_bases. \\$ 

• Line: 9

**Documentation:** No documentation available

## 2.9.23 PlayerStatsBase

• Module: player\_stats\_base

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/schemas/player\_stats\_ba

• Line: 6

**Documentation:** No documentation available

## 2.9.24 SerieBase

• Module: serie\_base

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/schemas/serie\_base.py

• Line: 7

**Documentation:** No documentation available

# 2.10 Classmethod

## 2.10.1 PlayerBase.from\_orm

• Module: player\_base

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/schemas/player\_base.py

• Line: 34

**Documentation:** No documentation available

```
data = super().from_orm(obj)
if isinstance(data.modified_at, datetime):
    data.modified_at = data.modified_at.isoformat()
return data
```

Documentation API\_Documentation

#### 2.11 Metadata

## 2.11.1 app

• Module: main

• File: /Users/bartoszkobylinski/Programming/Python/eppop\_fast\_api/app/api/main.py

• Line: 11

#### Documentation:

/api/v1

# 3 UML Diagrams

This section contains UML diagrams that visualize the project structure and relationships.

## 3.1 Diagram Analysis

• Classes Found: 27

• Relationships Found: 258

• Packages: stream\_base, match\_base, round\_score, serie\_base, game\_base, league, player\_result, match, player, test\_routers, player\_base, serie, player\_stats\_base, match\_result, tournament\_base, api\_updater, match\_result\_base, tournament, manager, round\_score\_base, league\_base, team, player\_result\_base, stream, game, team\_base, player\_stats

## 3.2 Main Diagram

The main UML diagram shows the overall structure of the system.

## PlantUML Source:

```
@startuml
!theme plain
skinparam classAttributeIconSize 0
skinparam classFontSize 12
skinparam packageStyle rectangle
skinparam class<<service>>BackgroundColor #E1F5FE
skinparam class<<service>>BorderColor #2196F3
skinparam class<<model>>BackgroundColor #E8F5E8
skinparam class<<model>>BorderColor #4CAF50
skinparam class<<repository>>BackgroundColor #FFF3E0
skinparam class<<repository>>BorderColor #FF9800
skinparam class<<controller>>BackgroundColor #F3E5F5
skinparam class<<controller>>BorderColor #9C27B0
skinparam class<<configuration>>BackgroundColor #FFEBEE
skinparam class<<configuration>>BorderColor #F44336
skinparam class<<interface>>BackgroundColor #F1F8E9
skinparam class<<interface>>BorderColor #8BC34A
```

```
package api_updater {
  class PlayerUpdater {
}
package test_routers {
  class MatchStatuses {
}
package league_base {
  class LeagueBase <<model>> {
}
package serie_base {
  class SerieBase <<model>> {
}
package game_base {
  class GameBase <<model>> {
}
package player_base {
  class PlayerBase <<model>> {
}
package player_stats_base {
  class PlayerStatsBase <<model>> {
  }
}
package player_result_base {
  class PlayerResultBase <<model>> {
}
package stream_base {
  class StreamBase <<model>> {
  }
}
package round_score_base {
  class RoundScoreBase <<model>> {
  }
}
package match_result_base {
  class MatchResultBase <<model>> {
```

```
}
}
package match_base {
  class MatchBase <<model>> {
  }
}
package team_base {
  class TeamBase <<model>> {
  }
}
package tournament_base {
  class TournamentBase <<model>> {
  }
}
package manager {
  class DatabaseManager {
  }
}
```

#### @enduml

@startuml

@enduml

## 3.3 Additional Diagrams

## 3.3.1 Sequence Diagram

```
title upcoming_matches Request Flow
participant Client
participant Router
participant Endpoint
participant Service
participant Repository
participant Database
Client -> Router : HTTP Request
Router -> Endpoint : route()
Endpoint -> Service : process()
Service -> Repository : save()
Repository -> Database : execute()
Database --> Repository : result
Repository --> Service : data
Service --> Endpoint : response
Endpoint --> Router : HTTP Response
Router --> Client : JSON Response
```

#### Component Diagram 3.3.2

```
@startuml
!include <C4/C4_Component>
title FastAPI Application Architecture
Container_Boundary(api, "API Layer") {
  Component(router, "Routers", "FastAPI", "HTTP endpoint routing")
  Component(middleware, "Middleware", "FastAPI", "Request/response processing")
}
Container_Boundary(service, "Service Layer") {
  Component(services, "Services", "Python", "Business logic")
  Component(deps, "Dependencies", "FastAPI", "Dependency injection")
}
Container_Boundary(data, "Data Layer") {
  Component(models, "Models", "Pydantic", "Data validation")
  Component(repo, "Repositories", "Python", "Data access")
}
Container_Boundary(external, "External") {
  Component(db, "Database", "Database", "Data storage")
  Component(confluence, "Confluence", "Atlassian", "Documentation")
}
Rel(router, services, "calls")
Rel(services, models, "validates")
Rel(services, repo, "queries")
Rel(repo, db, "persists")
Rel(services, confluence, "publishes")
@enduml
    Coverage Analysis
4
4.1
     Function Coverage
67 total items, 16 documented (23.9%).
```

#### 4.2 Class Coverage

15 total items, 0 documented (0.0%).

## Async Function Coverage

16 total items, 0 documented (0.0%).

## 4.4 Get Coverage

8 total items, 0 documented (0.0%).

#### 4.5 Post Coverage

7 total items, 0 documented (0.0%).

## 4.6 Delete Coverage

1 total items, 0 documented (0.0%).

# 4.7 Middleware Coverage

2 total items, 0 documented (0.0%).

# 4.8 Router Inclusion Coverage

3 total items, 0 documented (0.0%).

# 4.9 Pydantic Model Coverage

24 total items, 0 documented (0.0%).

# 4.10 Classmethod Coverage

1 total items, 0 documented (0.0%).

# 4.11 Metadata Coverage

1 total items, 1 documented (100.0%).

## 5 Conclusion

This documentation was automatically generated from the codebase analysis. For the most up-to-date information, please refer to the source code and regenerate this documentation as needed.