

API Documentation

Documentation

Auto-generated Documentation

2025-07-29 09:52:15

Contents

1	Overview	3
1.1	Documentation Statistics	3
1.2	Project Modules	3
2	Code Documentation	4
2.1	Function	4
2.1.1	setup_loggers	4
2.1.2	PlayerUpdater.__init__	4
2.1.3	PlayerUpdater.make_request	5
2.1.4	PlayerUpdater.get_upcoming_matches	5
2.1.5	PlayerUpdater.get_particular_team_url	5
2.1.6	PlayerUpdater.get_particular_player_stats_url	6
2.1.7	PlayerUpdater.get_particular_game_stats_url	6
2.1.8	PlayerUpdater.get_required_matches_for_particular_player	6
2.1.9	PlayerUpdater.compare_and_update	7
2.1.10	PlayerUpdater.fetch_last_games	7
2.1.11	PlayerUpdater.populate_leagues	7
2.1.12	PlayerUpdater.populate_series	8
2.1.13	PlayerUpdater.populate_tournament	8
2.1.14	PlayerUpdater.populate_team	8
2.1.15	PlayerUpdater.populate_player	9
2.1.16	PlayerUpdater.populate_match	9
2.1.17	PlayerUpdater.populate_game	9
2.1.18	PlayerUpdater.populate_match_result	10
2.1.19	PlayerUpdater.populate_round_score	10
2.1.20	PlayerUpdater.populate_player_result	10
2.1.21	PlayerUpdater.populate_player_stats	11
2.1.22	PlayerUpdater.populate_stream	11
2.1.23	PlayerUpdater.main_population	11
2.1.24	run_api_updater	12
2.1.25	get_roster_url	12
2.1.26	fetch_rosters	12
2.1.27	get_player_avg_kills_data	13
2.1.28	fetch_match_info	13
2.1.29	get_margin	13
2.1.30	calculate_odds_kill	14
2.1.31	poisson_probabilities	14
2.1.32	create_probability_matrix	14
2.1.33	calculate_total_probabilities	15
2.1.34	calculate_odds_h2h	15
2.1.35	fetch_upcoming_matches	15
2.1.36	DatabaseManager.__init__	16
2.1.37	DatabaseManager.create_tables	16
2.1.38	DatabaseManager.check_all_table_exists	16
2.1.39	DatabaseManager.get_session	16
2.1.40	DatabaseManager.add	17
2.1.41	DatabaseManager.get	17
2.1.42	DatabaseManager.get_all	17
2.1.43	DatabaseManager.update	18
2.1.44	DatabaseManager.delete	18
2.1.45	DatabaseManager.clear_all_data	19

2.1.46	DatabaseManager.get_session	19
2.1.47	get_db	19
2.1.48	PlayerBase.serialize_birthday	20
2.1.49	PlayerBase.serialize_modified_at	20
2.1.50	pp	20
2.1.51	dp	20
2.1.52	wynik	21
2.1.53	roster_url	21
2.1.54	fetch_matches	21
2.1.55	initialize_api	22
2.1.56	get_margin	22
2.1.57	calculate_odds	22
2.1.58	poisson_probabilities	23
2.1.59	create_probability_matrix	23
2.1.60	calculate_total_probabilities	23
2.1.61	calculate_odds	24
2.1.62	fetch_upcoming_matches	24
2.1.63	test_league_model	24
2.1.64	test_serie_model	25
2.1.65	test_team_model	25
2.1.66	run_migrations_offline	25
2.1.67	run_migrations_online	26
2.2	Class	26
2.2.1	PlayerUpdater	26
2.2.2	MatchStatuses	26
2.2.3	DatabaseManager	27
2.2.4	MatchResult	27
2.2.5	Game	27
2.2.6	League	27
2.2.7	PlayerStats	27
2.2.8	Team	28
2.2.9	Stream	28
2.2.10	Player	28
2.2.11	Serie	28
2.2.12	RoundScore	28
2.2.13	PlayerResult	28
2.2.14	Tournament	29
2.2.15	Match	29
2.3	Async Function	29
2.3.1	upcoming_matches	29
2.3.2	all_players_list	29
2.3.3	add_player_to_team	30
2.3.4	remove_player_from_team	30
2.3.5	upcoming_matches_with_rosters_and_stats	30
2.3.6	match_players_stats	31
2.3.7	upcoming_matches	31
2.3.8	optimized_fetch_and_aggregate	31
2.3.9	predict_stats	32
2.3.10	generate_h2h_data	32
2.3.11	generate_over_under_data	32
2.3.12	upcoming_matches	33
2.3.13	optimized_fetch_and_aggregate	33
2.3.14	predict_stats	33

2.3.15	generate_h2h_data	34
2.3.16	generate_over_under_data	34
2.4	Get	34
2.4.1	upcoming_matches	34
2.4.2	all_players_list	35
2.4.3	upcoming_matches_with_rosters_and_stats	35
2.4.4	match_players_stats	35
2.4.5	upcoming_matches	36
2.4.6	optimized_fetch_and_aggregate	36
2.4.7	upcoming_matches	36
2.4.8	optimized_fetch_and_aggregate	37
2.5	Post	37
2.5.1	add_player_to_team	37
2.5.2	predict_stats	37
2.5.3	generate_h2h_data	38
2.5.4	generate_over_under_data	38
2.5.5	predict_stats	38
2.5.6	generate_h2h_data	39
2.5.7	generate_over_under_data	39
2.6	Delete	39
2.6.1	remove_player_from_team	40
2.7	Middleware	40
2.7.1	app.middleware	40
2.7.2	app.middleware	40
2.8	Router Inclusion	40
2.8.1	app.router_inclusion	40
2.8.2	app.router_inclusion	41
2.8.3	app.router_inclusion	41
2.9	Pydantic Model	41
2.9.1	LeagueBase	41
2.9.2	SerieBase	41
2.9.3	GameBase	41
2.9.4	PlayerBase	42
2.9.5	PlayerStatsBase	42
2.9.6	PlayerResultBase	42
2.9.7	StreamBase	42
2.9.8	RoundScoreBase	42
2.9.9	MatchResultBase	42
2.9.10	MatchBase	43
2.9.11	TeamBase	43
2.9.12	TournamentBase	43
2.9.13	MatchResultBase	43
2.9.14	PlayerBase	43
2.9.15	StreamBase	44
2.9.16	RoundScoreBase	44
2.9.17	PlayerResultBase	44
2.9.18	MatchBase	44
2.9.19	LeagueBase	44
2.9.20	TeamBase	44
2.9.21	GameBase	45
2.9.22	TournamentBase	45
2.9.23	PlayerStatsBase	45
2.9.24	SerieBase	45

2.10	Classmethod	45
2.10.1	PlayerBase.from_orm	45
2.11	Metadata	46
2.11.1	app	46
3	UML 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	48
4	Coverage 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	49
4.7	Middleware Coverage	49
4.8	Router Inclusion Coverage	49
4.9	Pydantic Model Coverage	49
4.10	Classmethod Coverage	49
4.11	Metadata Coverage	50
5	Conclusion	50

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:** 16
- **Coverage:** 11.0%
- **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: *No documentation available*

```
1     timestamp = time.strftime("%Y%m%d-%H%M%S")
2
3     info_logger = logging.getLogger('info_logger')
4     error_logger = logging.getLogger('error_logger')
```

2.1.2 PlayerUpdater.__init__

Source Code Preview:

- **Module:** api_updater
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api_updater.py
- **Line:** 32

Documentation: *No documentation available*

```
1     self.headers = {
2         "Accept": "application/json",
3         "Authorization": f"Bearer {api_token}"
4     }
5     self.database_manager = DatabaseManager(user=user, password=password, host=
host, port=port, db_name=db_name)
```

2.1.3 PlayerUpdater.make_request

Source Code Preview:

- **Module:** api_updater
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api_updater.py
- **Line:** 40

Documentation: *No documentation available*

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

2.1.4 PlayerUpdater.get_upcoming_matches

Source Code Preview:

- **Module:** api_updater
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api_updater.py
- **Line:** 48

Documentation: *No documentation available*

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

2.1.5 PlayerUpdater.get_particular_team_url

Source Code Preview:

- **Module:** api_updater
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api_updater.py
- **Line:** 70

Documentation: *No documentation available*

```
1 return f'https://api.pandascore.co/teams/{team_id}'
```

2.1.6 PlayerUpdater.get_particular_player_stats_url

Source Code Preview:

- Module: api_updater
- File: /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api_updater.py
- Line: 73

Documentation: *No documentation available*

```
1 return f"https://api.pandascore.co/csgo/players/{player_id}/stats"
```

2.1.7 PlayerUpdater.get_particular_game_stats_url

Source Code Preview:

- Module: api_updater
- File: /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api_updater.py
- Line: 76

Documentation: *No documentation available*

```
1 return f'https://api.pandascore.co/csgo/games/{game_id}'
```

2.1.8 PlayerUpdater.get_required_matches_for_particular_player

Source Code Preview:

- Module: api_updater
- File: /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api_updater.py
- Line: 79

Documentation: *No documentation available*

```
1 return f"https://api.pandascore.co/players/{player_id}/matches?per_page={required_amount_of_matches}&sort=-modified_at"
```

2.1.9 PlayerUpdater.compare_and_update

Source Code Preview:

- **Module:** api_updater
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api_updater.py
- **Line:** 82

Documentation: *No documentation available*

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

2.1.10 PlayerUpdater.fetch_last_games

Source Code Preview:

- **Module:** api_updater
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api_updater.py
- **Line:** 90

Documentation: *No documentation available*

```
1         games_collected: List[int] = []
2         page = 1
3
4         while len(games_collected) < total_games:
5             matches_url = self.get_required_matches_for_particular_player(player_id,
```

2.1.11 PlayerUpdater.populate_leagues

Source Code Preview:

- **Module:** api_updater
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api_updater.py
- **Line:** 142

Documentation: *No documentation available*

```
1         league_id: int = league_data.get('id')
2         is_created = False
3
4         try:
5
```

2.1.12 PlayerUpdater.populate_series

Source Code Preview:

- Module: api_updater
- File: /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api_updater.py
- Line: 189

Documentation: *No documentation available*

```
1     serie_id: int = series_data.get('id')
2     is_created = False
3
4     try:
5         serie = session.query(Serie).filter_by(serie_id=serie_id).one_or_none()
```

2.1.13 PlayerUpdater.populate_tournament

Source Code Preview:

- Module: api_updater
- File: /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api_updater.py
- Line: 242

Documentation: *No documentation available*

```
1     tournament_id: int = match_data.get('tournament').get('id')
2     tournament_data = match_data.get('tournament')
3     is_created = False
4
5     try:
```

2.1.14 PlayerUpdater.populate_team

Source Code Preview:

- Module: api_updater
- File: /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api_updater.py
- Line: 319

Documentation: *No documentation available*

```
1     team_id = team_data.get('id')
2     print(f"players: {team_data}")
3
4     is_created = False
```

2.1.15 PlayerUpdater.populate_player

Source Code Preview:

- **Module:** api_updater
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api_updater.py
- **Line:** 392

Documentation: *No documentation available*

```
1     player_id = player_data.get('id')
2     is_created = False
3
4     try:
5         player = session.query(Player).filter_by(player_id=player_id).one_or_none()
6     ()
```

2.1.16 PlayerUpdater.populate_match

Source Code Preview:

- **Module:** api_updater
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api_updater.py
- **Line:** 450

Documentation: *No documentation available*

```
1     match_id = match_data.get('id')
2     is_created = False
3
4     try:
5         match = session.query(Match).filter_by(match_id=match_id).one_or_none()
6     ()
```

2.1.17 PlayerUpdater.populate_game

Source Code Preview:

- **Module:** api_updater
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api_updater.py
- **Line:** 554

Documentation: *No documentation available*

```
1     game_id = game_data.get('id')
2     is_created = False
3
4     try:
5         game = session.query(Game).filter_by(game_id=game_id).one_or_none()
6     ()
```

2.1.18 PlayerUpdater.populate_match_result

Source Code Preview:

- Module: api_updater
- File: /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api_updater.py
- Line: 608

Documentation: *No documentation available*

```
1 match_result_id = match_result_data.get('id')
2 is_created = False
3
4 try:
5     match_result = session.query(MatchResult).filter_by(id=match_result_id).
    one_or_none()
```

2.1.19 PlayerUpdater.populate_round_score

Source Code Preview:

- Module: api_updater
- File: /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api_updater.py
- Line: 647

Documentation: *No documentation available*

```
1 if not game_id:
2     error_logger.error("No game_id provided for round scores.")
3     return
4
5 try:
```

2.1.20 PlayerUpdater.populate_player_result

Source Code Preview:

- Module: api_updater
- File: /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api_updater.py
- Line: 712

Documentation: *No documentation available*

```
1 if not game_id:
2     error_logger.error("No game_id provided for player results.")
3     return
4
5 for player_data in players_result_data:
```

2.1.21 PlayerUpdater.populate_player_stats

Source Code Preview:

- Module: api_updater
- File: /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api_updater.py
- Line: 787

Documentation: *No documentation available*

```
1         try:
2             player_stats_data = self.make_request(url=self.
3             get_particular_player_stats_url(player_id=player_id))
4             player_stats_data = player_stats_data.json()
5
6             # Map player_stats_data to the PlayerStats model
```

2.1.22 PlayerUpdater.populate_stream

Source Code Preview:

- Module: api_updater
- File: /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api_updater.py
- Line: 862

Documentation: *No documentation available*

```
1         stream_id: int = stream_data.get('id')
2         is_created = False
3
4         try:
5             stream = session.query(Stream).filter_by(id=stream_id).one_or_none()
```

2.1.23 PlayerUpdater.main_population

Source Code Preview:

- Module: api_updater
- File: /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api_updater.py
- Line: 908

Documentation: *No documentation available*

```
1         with self.database_manager.get_session() as session:
2             teams_ids = set()
3             processed_tournaments = set()
4             processed_matches = set()
5             processed_teams = set()
```

2.1.24 run_api_updater

Source Code Preview:

- **Module:** api_updater
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api_updater.py
- **Line:** 1056

Documentation: *No documentation available*

```
1 start = time.time()
2 info_logger.info(f"API Updater start: {start}")
3 try:
4     player_updater = PlayerUpdater(api_token=pandascore_api_token, user=db_user,
5     password=db_password, host=db_host, port=db_port, db_name=db_name)
6     upcoming_matches = player_updater.get_upcoming_matches()
```

2.1.25 get_roster_url

Source Code Preview:

- **Module:** test_routers
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/test_routers.py
- **Line:** 82

Documentation: *No documentation available*

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

2.1.26 fetch_rosters

Source Code Preview:

- **Module:** test_routers
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/test_routers.py
- **Line:** 86

Documentation: *No documentation available*

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

2.1.27 get_player_avg_kills_data

Source Code Preview:

- **Module:** test_routers
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/test_routers.py
- **Line:** 91

Documentation: *No documentation available*

```
1 player_stats = (db.query(PlayerResult)
2                 .filter_by(player_id=player_id)
3                 .order_by(PlayerResult.game_id.desc())
4                 .limit(x_maps)
5                 .all())
```

2.1.28 fetch_match_info

Source Code Preview:

- **Module:** test_routers
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/test_routers.py
- **Line:** 138

Documentation: *No documentation available*

```
1 match_info = {
2     "match_id": match.match_id,
3     "teams": []
4 }
```

2.1.29 get_margin

Source Code Preview:

- **Module:** routers
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/routers.py
- **Line:** 23

Documentation: *No documentation available*

```
1 margin_str = data.get("margin", None)
2 margin_error = None
3
4 if margin_str is None:
5     margin_error = "Margin value is missing."
```


2.1.30 calculate_odds_kill

Source Code Preview:

- **Module:** routers
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/routers.py
- **Line:** 39

Documentation: *No documentation available*

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

2.1.31 poisson_probabilities

Source Code Preview:

- **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.

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

2.1.32 create_probability_matrix

Source Code Preview:

- **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.

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

2.1.33 calculate_total_probabilities

Source Code Preview:

- **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.

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

2.1.34 calculate_odds_h2h

Source Code Preview:

- **Module:** routers
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/routers.py
- **Line:** 80

Documentation:

Convert probabilities to odds.

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

2.1.35 fetch_upcoming_matches

Source Code Preview:

- **Module:** routers
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/routers.py
- **Line:** 103

Documentation: *No documentation available*

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

2.1.36 DatabaseManager.__init__

Source Code Preview:

- **Module:** manager
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/database/manager.py
- **Line:** 20

Documentation: *No documentation available*

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

2.1.37 DatabaseManager.create_tables

Source Code Preview:

- **Module:** manager
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/database/manager.py
- **Line:** 25

Documentation: *No documentation available*

```
1 Base.metadata.create_all(self.engine)
```

2.1.38 DatabaseManager.check_all_table_exists

Source Code Preview:

- **Module:** manager
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/database/manager.py
- **Line:** 28

Documentation: *No documentation available*

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

2.1.39 DatabaseManager.get_session

Source Code Preview:

- **Module:** manager
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/database/manager.py
- **Line:** 39

Documentation: *No documentation available*

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

2.1.40 DatabaseManager.add

Source Code Preview:

- **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

```
1 """
2 Save an instance of a model to the database
3 """
4 with self.get_session() as session:
5     session.add(instance)
```

2.1.41 DatabaseManager.get

Source Code Preview:

- **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.

```
1 """
2 Fetch a single instance of a model by its ID.
3 """
4 with self.get_session() as session:
5     try:
```

2.1.42 DatabaseManager.get_all

Source Code Preview:

- **Module:** manager
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/database/manager.py
- **Line:** 62

Documentation:

Fetch all instances of a model

```
1 """
2     Fetch all instances of a model
3     """
4     with self.get_session() as session:
5         return session.query(model_class).all()
```

2.1.43 DatabaseManager.update**Source Code Preview:**

- **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

```
1 """
2     Update a single instance of a model by its ID
3     """
4     with self.get_session() as session:
5         object = session.query(model_class).filter(model_class.id == object_id).
        one()
```

2.1.44 DatabaseManager.delete**Source Code Preview:**

- **Module:** manager
- **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

```
1 """
2     Delete a single instance of a model by its ID
3     """
4     with self.get_session() as session:
5         try:
```

2.1.45 DatabaseManager.clear_all_data

Source Code Preview:

- **Module:** manager
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/database/manager.py
- **Line:** 93

Documentation: *No documentation available*

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

2.1.46 DatabaseManager.get_session

Source Code Preview:

- **Module:** manager
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/database/manager.py
- **Line:** 102

Documentation: *No documentation available*

```
1         session = self.Session()
2         try:
3             yield session
4             session.commit()
5         except:
```

2.1.47 get_db

Source Code Preview:

- **Module:** manager
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/database/manager.py
- **Line:** 117

Documentation: *No documentation available*

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

2.1.48 PlayerBase.serialize_birthday

Source Code Preview:

- **Module:** player_base
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/schemas/player_base.py
- **Line:** 22

Documentation: *No documentation available*

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

2.1.49 PlayerBase.serialize_modified_at

Source Code Preview:

- **Module:** player_base
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/schemas/player_base.py
- **Line:** 28

Documentation: *No documentation available*

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

2.1.50 pp

Source Code Preview:

- **Module:** funkcja
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/temporary/funkcja.py
- **Line:** 6

Documentation: *No documentation available*

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

2.1.51 dp

Source Code Preview:

- **Module:** funkcja
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/temporary/funkcja.py
- **Line:** 10

Documentation: *No documentation available*

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

2.1.52 wynik

Source Code Preview:

- Module: funkcja
- File: /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/temporary/funkcja.py
- Line: 17

Documentation: *No documentation available*

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

2.1.53 roster_url

Source Code Preview:

- Module: tournaments
- File: /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/temporary/tournaments.py
- Line: 7

Documentation: *No documentation available*

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

2.1.54 fetch_matches

Source Code Preview:

- Module: roboczy
- File: /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/temporary/roboczy.py
- Line: 10

Documentation: *No documentation available*


```
1 global REQUEST_COUNT
2 headers = {
3     "Accept": "application/json",
4     "Authorization": f"Bearer {api_token}"
5 }
```

2.1.55 initialize_api

Source Code Preview:

- Module: main
- File: /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api/main.py
- Line: 10

Documentation: *No documentation available*

```
1 app = FastAPI(
2     root_path="/api/v1"
3 )
4
5 app.add_middleware(
```

2.1.56 get_margin

Source Code Preview:

- Module: router
- File: /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api/cs2/router.py
- Line: 22

Documentation: *No documentation available*

```
1 margin_str = data.get("margin", None)
2 margin_error = None
3
4 if margin_str is None:
5     margin_error = "Margin value is missing."
```

2.1.57 calculate_odds

Source Code Preview:

- Module: router
- File: /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api/cs2/router.py
- Line: 38

Documentation: *No documentation available*

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

2.1.58 poisson_probabilities

Source Code Preview:

- **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.

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

2.1.59 create_probability_matrix

Source Code Preview:

- **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.

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

2.1.60 calculate_total_probabilities

Source Code Preview:

- **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.

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

2.1.61 calculate_odds

Source Code Preview:

- Module: router
- File: /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api/cs2/router.py
- Line: 79

Documentation:

Convert probabilities to odds.

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

2.1.62 fetch_upcoming_matches

Source Code Preview:

- Module: router
- File: /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api/cs2/router.py
- Line: 102

Documentation: *No documentation available*

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

2.1.63 test_league_model

Source Code Preview:

- Module: tests_models
- File: /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/tests/tests_models.py
- Line: 12

Documentation: *No documentation available*

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

2.1.64 test_serie_model

Source Code Preview:

- **Module:** tests_models
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/tests/tests_models.py
- **Line:** 38

Documentation: *No documentation available*

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

2.1.65 test_team_model

Source Code Preview:

- **Module:** tests_models
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/tests/tests_models.py
- **Line:** 59

Documentation: *No documentation available*

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

2.1.66 run_migrations_offline

Source Code Preview:

- **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.

```
1  """Run migrations in 'offline' mode.
2
3  This configures the context with just a URL
4  and not an Engine, though an Engine is acceptable
5  here as well. By skipping the Engine creation,
```

2.1.67 run_migrations_online**Source Code Preview:**

- **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.

```
1  """Run migrations in 'online' mode.
2
3  In this scenario, we need to create an Engine
4  and associate a connection with the context.
```

2.2 Class**Source Code Preview:****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`
- **File:** `/Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/test_routers.py`
- **Line:** 18

Documentation: *No documentation available*

2.2.3 DatabaseManager

- **Module:** manager
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/database/manager.py
- **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
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/database/models/game.py
- **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
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/database/models/player_
- **Line:** 6

Documentation: *No documentation available*

2.2.8 Team

- **Module:** team
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/database/models/team.py
- **Line:** 7

Documentation: *No documentation available*

2.2.9 Stream

- **Module:** stream
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/database/models/stream.py
- **Line:** 7

Documentation: *No documentation available*

2.2.10 Player

- **Module:** player
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/database/models/player.py
- **Line:** 6

Documentation: *No documentation available*

2.2.11 Serie

- **Module:** serie
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/database/models/serie.py
- **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_score.py
- **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_result.py
- **Line:** 7

Documentation: *No documentation available*

2.2.14 Tournament

- **Module:** tournament
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/database/models/tournament.py
- **Line:** 9

Documentation: *No documentation available*

2.2.15 Match

- **Module:** match
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/database/models/match.py
- **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*

```
1 matches = db.query(Match).where(Match.status == MatchStatuses.NOT_STARTED.value).  
  join(Match.tournament).all()  
2  
3 if not matches:  
4     raise HTTPException(status_code=404, detail="No upcoming matches found")
```

2.3.2 all_players_list

Source Code Preview:

- **Module:** test_routers
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/test_routers.py
- **Line:** 42

Documentation: *No documentation available*


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

2.3.3 add_player_to_team

Source Code Preview:

- Module: test_routers
- File: /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/test_routers.py
- Line: 53

Documentation: *No documentation available*

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

2.3.4 remove_player_from_team

Source Code Preview:

- Module: test_routers
- File: /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/test_routers.py
- Line: 68

Documentation: *No documentation available*

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

2.3.5 upcoming_matches_with_rosters_and_stats

Source Code Preview:

- Module: test_routers
- File: /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/test_routers.py
- Line: 211

Documentation: *No documentation available*

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

2.3.6 match_players_stats

Source Code Preview:

- **Module:** test_routers
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/test_routers.py
- **Line:** 239

Documentation: *No documentation available*

```
1     match = db.query(Match).filter(Match.match_id == id).one_or_none()
2
3     if not match:
4         raise HTTPException(status_code=404, detail="Match not found")
```

2.3.7 upcoming_matches

Source Code Preview:

- **Module:** routers
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/routers.py
- **Line:** 129

Documentation: *No documentation available*

```
1     api_token = os.getenv("PANDASCORE_API_TOKEN")
2     if not api_token:
3         raise HTTPException(status_code=500, detail="API token is missing")
4
5     url = 'https://api.pandascore.co/csgo/matches/upcoming'
```

2.3.8 optimized_fetch_and_aggregate

Source Code Preview:

- **Module:** routers
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/routers.py
- **Line:** 152

Documentation: *No documentation available*

```
1 start = time.time()
2 global REQUEST_COUNT
3 player_games = defaultdict(list)
4 player_details = defaultdict(lambda: {"kills": [], "headshots": [], "rounds":
5 []})
6 unique_game_ids = set()
```

2.3.9 predict_stats

Source Code Preview:

- **Module:** routers
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/routers.py
- **Line:** 312

Documentation: *No documentation available*

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

2.3.10 generate_h2h_data

Source Code Preview:

- **Module:** routers
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/routers.py
- **Line:** 360

Documentation: *No documentation available*

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

2.3.11 generate_over_under_data

Source Code Preview:

- **Module:** routers
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/routers.py
- **Line:** 393

Documentation: *No documentation available*

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

2.3.12 upcoming_matches

Source Code Preview:

- **Module:** router
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api/cs2/router.py
- **Line:** 128

Documentation: *No documentation available*

```
1     api_token = os.getenv("PANDASCORE_API_TOKEN")
2     if not api_token:
3         raise HTTPException(status_code=500, detail="API token is missing")
4
5     url = 'https://api.pandascore.co/csgo/matches/upcoming'
```

2.3.13 optimized_fetch_and_aggregate

Source Code Preview:

- **Module:** router
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api/cs2/router.py
- **Line:** 151

Documentation: *No documentation available*

```
1     start = time.time()
2     global REQUEST_COUNT
3     player_games = defaultdict(list)
4     player_details = defaultdict(lambda: {"kills": [], "headshots": [], "rounds":
5     []})
5     unique_game_ids = set()
```

2.3.14 predict_stats

Source Code Preview:

- **Module:** router
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api/cs2/router.py
- **Line:** 311

Documentation: *No documentation available*

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

2.3.15 generate_h2h_data

Source Code Preview:

- **Module:** router
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api/cs2/router.py
- **Line:** 358

Documentation: *No documentation available*

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

2.3.16 generate_over_under_data

Source Code Preview:

- **Module:** router
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api/cs2/router.py
- **Line:** 391

Documentation: *No documentation available*

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

2.4 Get

Source Code Preview:

2.4.1 upcoming_matches

- **Module:** test_routers
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/test_routers.py
- **Line:** 32

Documentation: *No documentation available*

```
1 matches = db.query(Match).where(Match.status == MatchStatuses.NOT_STARTED.value).  
  join(Match.tournament).all()  
2  
3 if not matches:  
4     raise HTTPException(status_code=404, detail="No upcoming matches found")
```

2.4.2 all_players_list

Source Code Preview:

- **Module:** test_routers
- **File:** /Users/bartoszkojylinski/Programming/Python/eppop_fast_api/app/test_routers.py
- **Line:** 42

Documentation: *No documentation available*

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

2.4.3 upcoming_matches_with_rosters_and_stats

Source Code Preview:

- **Module:** test_routers
- **File:** /Users/bartoszkojylinski/Programming/Python/eppop_fast_api/app/test_routers.py
- **Line:** 211

Documentation: *No documentation available*

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

2.4.4 match_players_stats

Source Code Preview:

- **Module:** test_routers
- **File:** /Users/bartoszkojylinski/Programming/Python/eppop_fast_api/app/test_routers.py
- **Line:** 239

Documentation: *No documentation available*

```
1 match = db.query(Match).filter(Match.match_id == id).one_or_none()
2
3 if not match:
4     raise HTTPException(status_code=404, detail="Match not found")
```

2.4.5 upcoming_matches

Source Code Preview:

- **Module:** routers
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/routers.py
- **Line:** 129

Documentation: *No documentation available*

```
1 api_token = os.getenv("PANDASCORE_API_TOKEN")
2 if not api_token:
3     raise HTTPException(status_code=500, detail="API token is missing")
4
5 url = 'https://api.pandascore.co/csgo/matches/upcoming'
```

2.4.6 optimized_fetch_and_aggregate

Source Code Preview:

- **Module:** routers
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/routers.py
- **Line:** 152

Documentation: *No documentation available*

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

2.4.7 upcoming_matches

Source Code Preview:

- **Module:** router
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api/cs2/router.py
- **Line:** 128

Documentation: *No documentation available*

```
1  api_token = os.getenv("PANDASCORE_API_TOKEN")
2  if not api_token:
3      raise HTTPException(status_code=500, detail="API token is missing")
4
5  url = 'https://api.pandascore.co/csgo/matches/upcoming'
```

2.4.8 optimized_fetch_and_aggregate

Source Code Preview:

- **Module:** router
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api/cs2/router.py
- **Line:** 151

Documentation: *No documentation available*

```
1  start = time.time()
2  global REQUEST_COUNT
3  player_games = defaultdict(list)
4  player_details = defaultdict(lambda: {"kills": [], "headshots": [], "rounds":
5  []})
6  unique_game_ids = set()
```

2.5 Post

Source Code Preview:

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*

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

2.5.2 predict_stats

Source Code Preview:

- **Module:** routers
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/routers.py
- **Line:** 312

Documentation: *No documentation available*

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

2.5.3 generate_h2h_data

Source Code Preview:

- **Module:** routers
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/routers.py
- **Line:** 360

Documentation: *No documentation available*

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

2.5.4 generate_over_under_data

Source Code Preview:

- **Module:** routers
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/routers.py
- **Line:** 393

Documentation: *No documentation available*

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

2.5.5 predict_stats

Source Code Preview:

- **Module:** router
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api/cs2/router.py
- **Line:** 311

Documentation: *No documentation available*

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

2.5.6 generate_h2h_data

Source Code Preview:

- **Module:** router
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api/cs2/router.py
- **Line:** 358

Documentation: *No documentation available*

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

2.5.7 generate_over_under_data

Source Code Preview:

- **Module:** router
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/api/cs2/router.py
- **Line:** 391

Documentation: *No documentation available*

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

2.6 Delete

Source Code Preview:

2.6.1 remove_player_from_team

- **Module:** test_routers
- **File:** /Users/bartoszko bylinski/Programming/Python/eppop_fast_api/app/test_routers.py
- **Line:** 68

Documentation: *No documentation available*

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

2.7 Middleware

Source Code Preview:

2.7.1 app.middleware

- **Module:** main
- **File:** /Users/bartoszko bylinski/Programming/Python/eppop_fast_api/app/main.py
- **Line:** 13

Documentation: *No documentation available*

2.7.2 app.middleware

- **Module:** main
- **File:** /Users/bartoszko bylinski/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/bartoszko bylinski/Programming/Python/eppop_fast_api/app/main.py
- **Line:** 21

Documentation: *No documentation available*

2.8.2 app.router_inclusion

- **Module:** main
- **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

Documentation: *No documentation available*

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_base.py
- **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_base.py
- **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_base.py
- **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

Documentation: *No documentation available*

2.9.22 TournamentBase

- **Module:** tournament_base
- **File:** /Users/bartoszkobylinski/Programming/Python/eppop_fast_api/app/schemas/tournament_base.py
- **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_base.py
- **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*


```

1     data = super().from_orm(obj)
2     if isinstance(data.modified_at, datetime):
3         data.modified_at = data.modified_at.isoformat()
4     return data

```

2.11 Metadata

Source Code Preview:

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:** 86
- **Packages:** stream, match_result_base, player, test_routers, player_stats, serie, stream_base, game, player_base, match_result, match_base, round_score_base, round_score, player_result, team, serie_base, player_result_base, tournament, api_updater, tournament_base, league_base, manager, game_base, match, league, team_base, player_stats_base

3.2 Main Diagram

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

```

1 @startuml
2 !theme plain
3 skinparam classAttributeIconSize 0
4 skinparam classFontSize 12
5 skinparam packageStyle rectangle
6
7 skinparam class<<service>>BackgroundColor #E1F5FE
8 skinparam class<<service>>BorderColor #2196F3
9 skinparam class<<model>>BackgroundColor #E8F5E8
10 skinparam class<<model>>BorderColor #4CAF50
11 skinparam class<<repository>>BackgroundColor #FFF3E0
12 skinparam class<<repository>>BorderColor #FF9800
13 skinparam class<<controller>>BackgroundColor #F3E5F5
14 skinparam class<<controller>>BorderColor #9C27B0
15 skinparam class<<configuration>>BackgroundColor #FFEBEE
16 skinparam class<<configuration>>BorderColor #F44336

```

```
17 skinparam class<<interface>>BackgroundColor #F1F8E9
18 skinparam class<<interface>>BorderColor #8BC34A
19
20 left to right direction
21
22 package api_updater {
23   class PlayerUpdater {
24   }
25 }
26
27 package test_routers {
28   class MatchStatuses {
29   }
30 }
31
32 package league_base {
33   class LeagueBase <<model>> {
34   }
35 }
36
37 package serie_base {
38   class SerieBase <<model>> {
39   }
40 }
41
42 package game_base {
43   class GameBase <<model>> {
44   }
45 }
46
47 package player_base {
48   class PlayerBase <<model>> {
49   }
50 }
51
52 package player_stats_base {
53   class PlayerStatsBase <<model>> {
54   }
55 }
56
57 package player_result_base {
58   class PlayerResultBase <<model>> {
59   }
60 }
61
62 package stream_base {
63   class StreamBase <<model>> {
64   }
65 }
66
67 package round_score_base {
68   class RoundScoreBase <<model>> {
69   }
70 }
71
72 package match_result_base {
73   class MatchResultBase <<model>> {
74   }
75 }
76
77 package match_base {
78   class MatchBase <<model>> {
79   }
80 }
81
82 package team_base {
```

```

83     class TeamBase <<model>> {
84     }
85 }
86
87 package tournament_base {
88     class TournamentBase <<model>> {
89     }
90 }
91
92 package manager {
93     class DatabaseManager {
94     }
95 }
96
97
98 @enduml

```

3.3 Additional Diagrams

PlantUML Source:

3.3.1 Sequence Diagram

```

1 @startuml
2 title upcoming_matches Request Flow
3
4 participant Client
5 participant Router
6 participant Endpoint
7 participant Service
8 participant Repository
9 participant Database
10
11 Client -> Router : HTTP Request
12 Router -> Endpoint : route()
13 Endpoint -> Service : process()
14 Service -> Repository : save()
15 Repository -> Database : execute()
16 Database --> Repository : result
17 Repository --> Service : data
18 Service --> Endpoint : response
19 Endpoint --> Router : HTTP Response
20 Router --> Client : JSON Response
21
22 @enduml

```

3.3.2 Component Diagram

```

1 @startuml
2 !include <C4/C4_Component>
3
4 title FastAPI Application Architecture
5
6 Container_Boundary(api, "API Layer") {
7     Component(router, "Routers", "FastAPI", "HTTP endpoint routing")
8     Component(middleware, "Middleware", "FastAPI", "Request/response processing")
9 }
10
11 Container_Boundary(service, "Service Layer") {
12     Component(services, "Services", "Python", "Business logic")
13     Component(deps, "Dependencies", "FastAPI", "Dependency injection")
14 }

```

```
15
16 Container_Boundary(data, "Data Layer") {
17     Component(models, "Models", "Pydantic", "Data validation")
18     Component(repo, "Repositories", "Python", "Data access")
19 }
20
21 Container_Boundary(external, "External") {
22     Component(db, "Database", "Database", "Data storage")
23     Component(confluence, "Confluence", "Atlassian", "Documentation")
24 }
25
26 Rel(router, services, "calls")
27 Rel(services, models, "validates")
28 Rel(services, repo, "queries")
29 Rel(repo, db, "persists")
30 Rel(services, confluence, "publishes")
31
32 @enduml
```

4 Coverage Analysis

4.1 Function Coverage

67 total items, 15 documented (22.4%).

4.2 Class Coverage

15 total items, 0 documented (0.0%).

4.3 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.