

## SominAI Test Task

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# Chapter 1

## Hierarchical Index

### 1.1 Class Hierarchy

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## Chapter 2

# Class Index

### 2.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

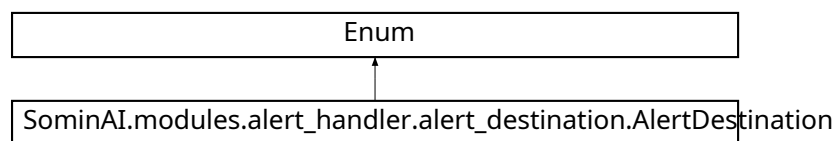
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## Chapter 3

# Class Documentation

### 3.1 SominAI.modules.alert\_handler.alert\_destination.AlertDestination Class Reference

Inheritance diagram for SominAI.modules.alert\_handler.alert\_destination.AlertDestination:



#### Static Public Attributes

- str **MONITORING** = "monitoring"
- str **TELEGRAM** = "telegram"
- str **LOGGING** = "logging"

#### 3.1.1 Detailed Description

Enumeration for alert destinations.

This enumeration defines different destinations where alerts can be sent. It provides flexibility for handling and routing alerts in various systems.

Attributes:

- MONITORING: Destination for monitoring systems (e.g., dashboards or monitoring tools).
- TELEGRAM: Destination for sending alerts to Telegram.
- LOGGING: Destination for logging alerts into application logs.

The documentation for this class was generated from the following file:

- modules/alert\_handler/alert\_destination.py

## 3.2 SominAI.modules.alert\_handler.alert\_handler.AlertHandler Class Reference

### Public Member Functions

- [\\_\\_init\\_\\_](#) (self, dict config)
- [monitor\\_services](#) (self, dict services)
- None [send\\_alert](#) (self, [AlertDestination](#) destination, str message)

### Static Public Member Functions

- [get\\_instance](#) (dict config)

### Public Attributes

- **config** = config
- **logger** = [Logger](#)

### Protected Member Functions

- None [\\_send\\_to\\_monitoring](#) (self, str message)
- None [\\_send\\_to\\_telegram](#) (self, str message)
- None [\\_log\\_alert](#) (self, str message)

### Static Protected Attributes

- **\_instance** = None

### 3.2.1 Detailed Description

A universal alert handler that supports multiple notification channels.

This handler initializes once and monitors the state of services. If a signal is detected from any service, it sends an alert to the specified destination.

### 3.2.2 Constructor & Destructor Documentation

#### 3.2.2.1 [\\_\\_init\\_\\_\(\)](#)

```
SominAI.modules.alert_handler.alert_handler.AlertHandler.__init__(  
    self,  
    dict config)
```

Initializes the alert handler.

:param config: Configuration dictionary for notification channels.



### 3.2.3 Member Function Documentation

#### 3.2.3.1 \_send\_to\_monitoring()

None SominAI.modules.alert\_handler.alert\_handler.AlertHandler.\_send\_to\_monitoring (  
self,  
str message) [protected]

Sending to monitoring services logic.

#### 3.2.3.2 get\_instance()

SominAI.modules.alert\_handler.alert\_handler.AlertHandler.get\_instance (  
dict config) [static]

Returns the singleton instance of the AlertHandler.

:param config: Configuration dictionary for notification channels.  
:return: The AlertHandler singleton instance.

#### 3.2.3.3 monitor\_services()

SominAI.modules.alert\_handler.alert\_handler.AlertHandler.monitor\_services (  
self,  
dict services)

Monitors the state of services and triggers alerts if any service sends a signal.

:param services: Dictionary of services and their states.

#### 3.2.3.4 send\_alert()

None SominAI.modules.alert\_handler.alert\_handler.AlertHandler.send\_alert (  
self,  
[AlertDestination](#) destination,  
str message)

Sends an alert to the specified destination.

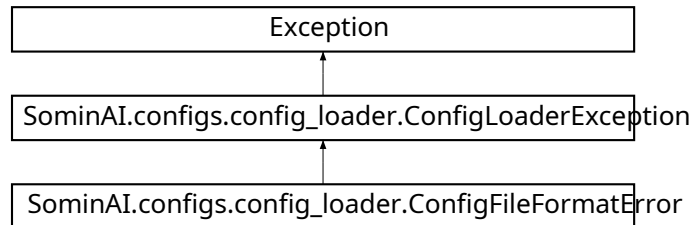
:param destination: Alert destination from AlertDestination enum.  
:param message: Message text to be sent.

The documentation for this class was generated from the following file:

- modules/alert\_handler/alert\_handler.py

### 3.3 SominAI.configs.config\_loader.ConfigFileFormatError Class Reference

Inheritance diagram for SominAI.configs.config\_loader.ConfigFileFormatError:



#### Public Member Functions

- `__init__` (self, str file\_path, Exception error)

#### Public Attributes

- `file_path` = file\_path
- `error` = error

#### 3.3.1 Detailed Description

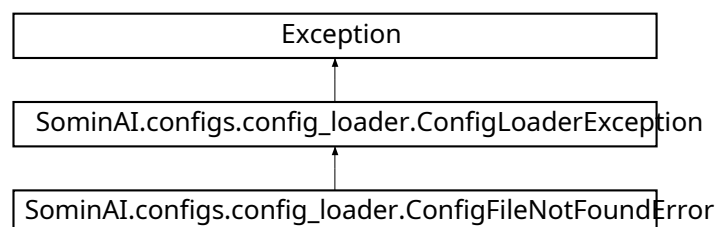
Raised when the configuration file has invalid YAML format.

The documentation for this class was generated from the following file:

- configs/config\_loader.py

### 3.4 SominAI.configs.config\_loader.ConfigFileNotFoundError Class Reference

Inheritance diagram for SominAI.configs.config\_loader.ConfigFileNotFoundError:



#### Public Member Functions

- `__init__` (self, str file\_path)

## Public Attributes

- **file\_path** = file\_path

### 3.4.1 Detailed Description

Raised when the configuration file is not found.

The documentation for this class was generated from the following file:

- configs/config\_loader.py

## 3.5 SominAI.configs.config\_loader.ConfigLoader Class Reference

### Static Public Member Functions

- dict [load\\_config](#) (str file\_path)

### 3.5.1 Detailed Description

A utility class to load and parse YAML configuration files.

This class provides a static method to load YAML files and ensures proper error handling for missing files and invalid formats.

### 3.5.2 Member Function Documentation

#### 3.5.2.1 load\_config()

```
dict SominAI.configs.config_loader.ConfigLoader.load_config (  
    str file_path)          [static]
```

Loads a YAML configuration file.

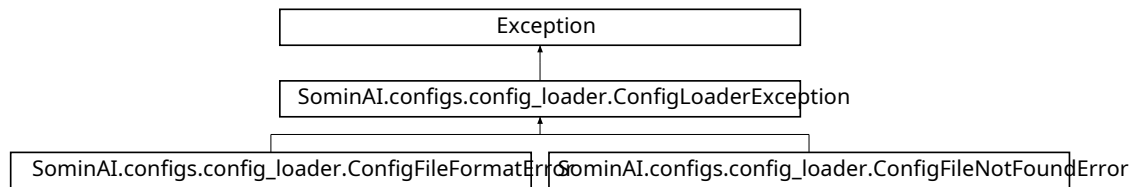
:param file\_path: Path to the YAML file.  
:return: Configuration as a dictionary.  
:raises ConfigFileNotFoundError: If the file does not exist.  
:raises ConfigFileFormatError: If the YAML format is invalid.

The documentation for this class was generated from the following file:

- configs/config\_loader.py

### 3.6 SominAI.configs.config\_loader.ConfigLoaderException Class Reference

Inheritance diagram for SominAI.configs.config\_loader.ConfigLoaderException:



#### 3.6.1 Detailed Description

Base exception for ConfigLoader.

The documentation for this class was generated from the following file:

- configs/config\_loader.py

### 3.7 SominAI.crawler.crawler.Crawler Class Reference

#### Public Member Functions

- `__init__` (self, str rabbit\_config\_path, str redis\_config\_path)
- `connect` (self)
- `process_task` (self, dict message)
- `consume_tasks` (self)
- `close` (self)

#### Public Attributes

- `rabbit_publisher` = `RabbitMQPublisher`(rabbit\_config\_path)
- `redis_manager` = `RedisManager`(redis\_config\_path)
- `parser` = `TikTokLibraryParser`()
- str `task_queue` = "crawler.task"
- str `result_queue` = "crawler.result"

#### 3.7.1 Detailed Description

Asynchronously consumes tasks from RabbitMQ, processes data, and publishes results.

## 3.7.2 Member Function Documentation

### 3.7.2.1 close()

SominAI.crawler.crawler.Crawler.close (  
self)

Closes connections to RabbitMQ and Redis.

### 3.7.2.2 connect()

SominAI.crawler.crawler.Crawler.connect (  
self)

Establishes connections to RabbitMQ and Redis.

### 3.7.2.3 consume\_tasks()

SominAI.crawler.crawler.Crawler.consume\_tasks (  
self)

Asynchronously consumes tasks from the RabbitMQ queue.

### 3.7.2.4 process\_task()

SominAI.crawler.crawler.Crawler.process\_task (  
self,  
dict message)

Processes a single task message asynchronously.

The documentation for this class was generated from the following file:

- crawler/crawler.py

## 3.8 SominAI.modules.exception\_handler.exception\_handler.ExceptionHandler Class Reference

### Static Public Member Functions

- dict [handle\\_exception](#) (Exception exc, dict context)

### 3.8.1 Detailed Description

A centralized handler for exceptions in a SaaS environment.

This class handles exceptions, logs them using the Logger, and formats a unified response structure for error handling. In an HTTP context, 'path' and 'method' can be provided; otherwise, default values are used.

### 3.8.2 Member Function Documentation

#### 3.8.2.1 handle\_exception()

```
dict SominAI.modules.exception_handler.exception_handler.ExceptionHandler.handle_exception (
    Exception exc,
    dict context)    [static]
```

Handles an exception and formats a unified response.

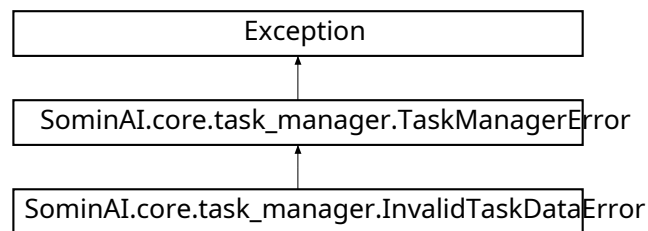
:param exc: Exception to handle.  
 :param context: Additional context, e.g., request details.  
 :return: Unified error response.  
 :raises TypeError: If 'exc' is not an instance of Exception or 'context' is not a dictionary.

The documentation for this class was generated from the following file:

- modules/exception\_handler/exception\_handler.py

## 3.9 SominAI.core.task\_manager.InvalidTaskDataError Class Reference

Inheritance diagram for SominAI.core.task\_manager.InvalidTaskDataError:



#### Public Member Functions

- `__init__` (self, str message)

### 3.9.1 Detailed Description

Raised when task data is invalid.

The documentation for this class was generated from the following file:

- core/task\_manager.py

## 3.10 SominAI.modules.logger.logger.Logger Class Reference

### Public Member Functions

- None [configure\\_logger](#)(cls, str name, dict|str|None config\_path=None, [LogLevel](#) level=LogLevel.INFO, str|None log\_file=None)
- None [log](#)(cls, message, [LogLevel](#) level)
- None [log\\_info](#)(cls, message)
- None [log\\_debug](#)(cls, message)
- None [log\\_warning](#)(cls, message)
- None [log\\_error](#)(cls, message)
- None [log\\_critical](#)(cls, message)

### Public Attributes

- dict **\_logger** = cls.\_load\_yaml\_config(config\_path)
- str **\_logger** = cls.\_validate\_message(message)

### Protected Member Functions

- dict [\\_load\\_yaml\\_config](#)(cls, str config\_path)
- None [\\_ensure\\_log\\_directory](#)(cls)
- None [\\_validate\\_log\\_level](#)(cls, [LogLevel](#) level)
- str [\\_validate\\_message](#)(cls, message)

### Static Protected Attributes

- logging **\_logger** = None
- str **\_log\_file** = None

### 3.10.1 Detailed Description

A universal logger module that provides configurable logging capabilities.

### 3.10.2 Member Function Documentation

#### 3.10.2.1 [\\_ensure\\_log\\_directory\(\)](#)

None SominAI.modules.logger.logger.Logger.\_ensure\_log\_directory (cls) [protected]

Ensures that the log directory exists. If it doesn't, creates it.

### 3.10.2.2 `_load_yaml_config()`

```
dict SominAI.modules.logger.logger.Logger._load_yaml_config (
    cls,
    str config_path)    [protected]
```

Loads the YAML configuration file for logging using ConfigLoader.

### 3.10.2.3 `_validate_log_level()`

```
None SominAI.modules.logger.logger.Logger._validate_log_level (
    cls,
    LogLevel level)    [protected]
```

Ensures the provided log level is valid.

### 3.10.2.4 `_validate_message()`

```
str SominAI.modules.logger.logger.Logger._validate_message (
    cls,
    message)    [protected]
```

Validates and converts the message to a string.

### 3.10.2.5 `configure_logger()`

```
None SominAI.modules.logger.logger.Logger.configure_logger (
    cls,
    str name,
    dict | str | None config_path = None,
    LogLevel level = LogLevel.INFO,
    str | None log_file = None)
```

Configures the logger using a YAML configuration file or defaults.

:param name: Name of the logger.  
:param config\_path: Path/dict to the YAML configuration. If None, defaults are used.  
:param level: Logging level if no config is provided.  
:param log\_file: File path for log output (optional).  
:raises LoggerConfigError: If the config fails to load or apply.

### 3.10.2.6 `log()`

```
None SominAI.modules.logger.logger.Logger.log (
    cls,
    message,
    LogLevel level)
```

Logs a message at the specified log level.



### 3.10.2.7 log\_critical()

```
None SominAI.modules.logger.logger.Logger.log_critical (
    cls,
    message)
```

Logs a critical message.

### 3.10.2.8 log\_debug()

```
None SominAI.modules.logger.logger.Logger.log_debug (
    cls,
    message)
```

Logs a debug message.

### 3.10.2.9 log\_error()

```
None SominAI.modules.logger.logger.Logger.log_error (
    cls,
    message)
```

Logs an error message.

### 3.10.2.10 log\_info()

```
None SominAI.modules.logger.logger.Logger.log_info (
    cls,
    message)
```

Logs an informational message.

### 3.10.2.11 log\_warning()

```
None SominAI.modules.logger.logger.Logger.log_warning (
    cls,
    message)
```

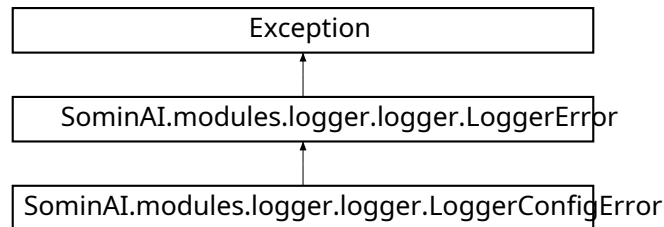
Logs a warning message.

The documentation for this class was generated from the following file:

- modules/logger/logger.py

### 3.11 SominAI.modules.logger.logger.LoggerConfigError Class Reference

Inheritance diagram for SominAI.modules.logger.logger.LoggerConfigError:



#### 3.11.1 Detailed Description

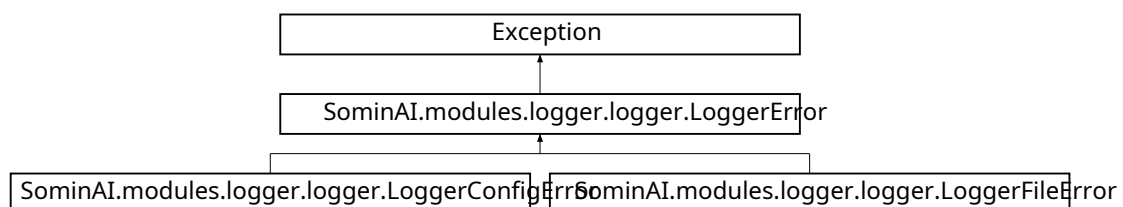
Raised when there is an error in loading or applying the configuration.

The documentation for this class was generated from the following file:

- modules/logger/logger.py

### 3.12 SominAI.modules.logger.logger.LoggerError Class Reference

Inheritance diagram for SominAI.modules.logger.logger.LoggerError:



#### 3.12.1 Detailed Description

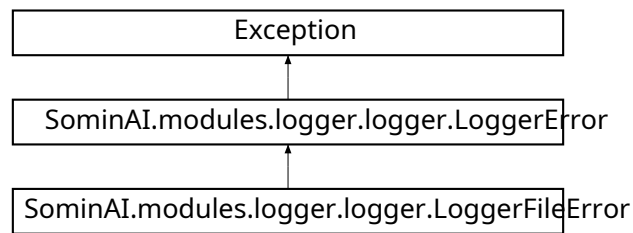
Base exception for Logger errors.

The documentation for this class was generated from the following file:

- modules/logger/logger.py

## 3.13 SominAI.modules.logger.logger.LoggerFileError Class Reference

Inheritance diagram for SominAI.modules.logger.logger.LoggerFileError:



### 3.13.1 Detailed Description

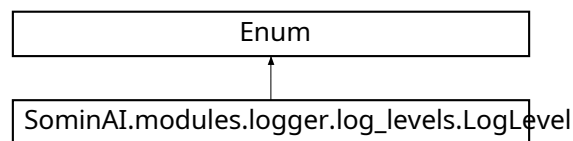
Raised when there is an issue with log file operations.

The documentation for this class was generated from the following file:

- modules/logger/logger.py

## 3.14 SominAI.modules.logger.log\_levels.LogLevel Class Reference

Inheritance diagram for SominAI.modules.logger.log\_levels.LogLevel:



### Static Public Attributes

- **INFO** = logging.INFO
- **DEBUG** = logging.DEBUG
- **WARNING** = logging.WARNING
- **ERROR** = logging.ERROR
- **CRITICAL** = logging.CRITICAL

### 3.14.1 Detailed Description

Enumeration for log levels.

This enumeration maps Python's logging levels to a more structured format. It can be used to specify logging verbosity in applications.

Attributes:

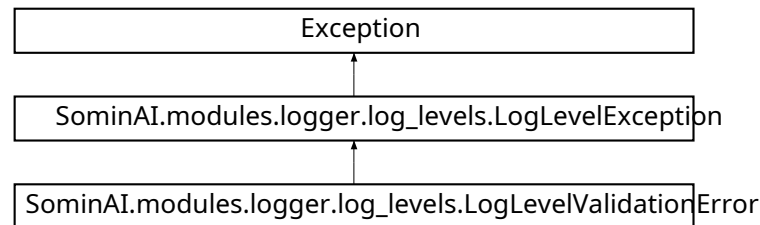
INFO: Informational messages.  
DEBUG: Debugging messages.  
WARNING: Warning messages indicating potential issues.  
ERROR: Error messages for failures that require attention.  
CRITICAL: Critical error messages for severe failures.

The documentation for this class was generated from the following file:

- modules/logger/log\_levels.py

### 3.15 SominAI.modules.logger.log\_levels.LogLevelException Class Reference

Inheritance diagram for SominAI.modules.logger.log\_levels.LogLevelException:



#### 3.15.1 Detailed Description

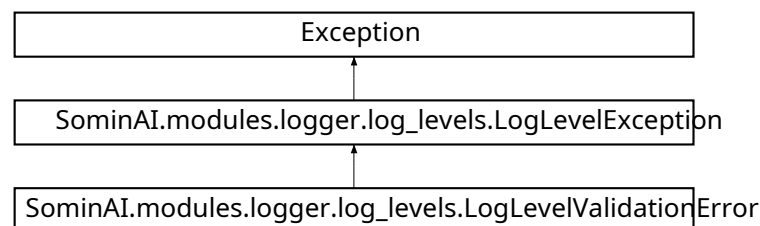
Base exception for LogLevel errors.

The documentation for this class was generated from the following file:

- modules/logger/log\_levels.py

### 3.16 SominAI.modules.logger.log\_levels.LogLevelValidationError Class Reference

Inheritance diagram for SominAI.modules.logger.log\_levels.LogLevelValidationError:



#### 3.16.1 Detailed Description

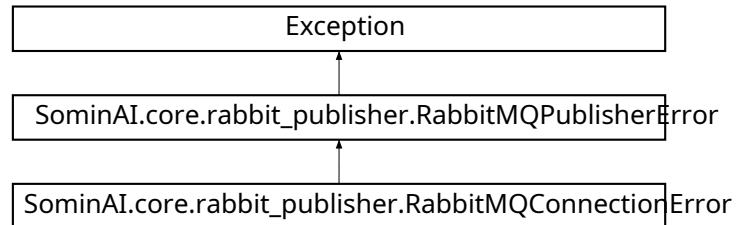
Raised when there is a validation error in LogLevel input.

The documentation for this class was generated from the following file:

- modules/logger/log\_levels.py

## 3.17 SominAI.core.rabbit\_publisher.RabbitMQConnectionError Class Reference

Inheritance diagram for SominAI.core.rabbit\_publisher.RabbitMQConnectionError:



### 3.17.1 Detailed Description

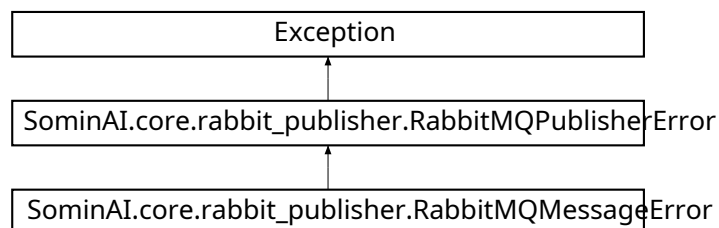
Raised when there is a connection error.

The documentation for this class was generated from the following file:

- core/rabbit\_publisher.py

## 3.18 SominAI.core.rabbit\_publisher.RabbitMQMessageError Class Reference

Inheritance diagram for SominAI.core.rabbit\_publisher.RabbitMQMessageError:



### 3.18.1 Detailed Description

Raised when there is an error publishing a message.

The documentation for this class was generated from the following file:

- core/rabbit\_publisher.py

## 3.19 SominAI.core.rabbit\_publisher.RabbitMQPublisher Class Reference

### Public Member Functions

- `__init__` (self, str config\_path="configs/rabbitmq.yaml")
- `connect` (self)
- `None send_task` (self, str task\_id, str keyword)
- `None publish` (self, str queue, dict message)
- `None close_connection` (self)

### Public Attributes

- `host` = config.get("host", "localhost")
- `queue` = config.get("queue", "task\_queue")
- `username` = config.get("username", "guest")
- `password` = config.get("password", "guest")
- `logger` = `Logger`
- `exception_handler` = `ExceptionHandler()`
- `channel`
- `connection`

### Protected Member Functions

- `None _ensure_channel_initialized` (self)

### 3.19.1 Detailed Description

Handles asynchronous communication with RabbitMQ for task publishing.

### 3.19.2 Constructor & Destructor Documentation

#### 3.19.2.1 `__init__()`

```
SominAI.core.rabbit_publisher.RabbitMQPublisher.__init__ (
    self,
    str    config_path = "configs/rabbitmq.yaml")
```

Initializes the RabbitMQPublisher with configuration from a file.

:param config\_path: Path to the RabbitMQ configuration file.

### 3.19.3 Member Function Documentation

#### 3.19.3.1 `_ensure_channel_initialized()`

```
None SominAI.core.rabbit_publisher.RabbitMQPublisher._ensure_channel_initialized (
    self)    [protected]
```

Check whether the RabbitMQ channel is initialized or not.

:raise RabbitMQConnectionError: In case if channel is 'None'.

### 3.19.3.2 close\_connection()

None SominAI.core.rabbit\_publisher.RabbitMQPublisher.close\_connection (  
self)

Asynchronously closes the connection to RabbitMQ.

### 3.19.3.3 connect()

SominAI.core.rabbit\_publisher.RabbitMQPublisher.connect (  
self)

Asynchronously connects to RabbitMQ and declares the default queue.

### 3.19.3.4 publish()

None SominAI.core.rabbit\_publisher.RabbitMQPublisher.publish (  
self,  
str queue,  
dict message)

Publishes a message to a specified RabbitMQ queue asynchronously.

:param queue: The name of the queue.

:param message: The message to publish (as a dictionary).

### 3.19.3.5 send\_task()

None SominAI.core.rabbit\_publisher.RabbitMQPublisher.send\_task (  
self,  
str task\_id,  
str keyword)

Publishes a task message to the RabbitMQ queue asynchronously.

:param task\_id: Unique ID of the task.

:param keyword: Keyword for the task.

## 3.19.4 Member Data Documentation

### 3.19.4.1 connection

SominAI.core.rabbit\_publisher.RabbitMQPublisher.connection

#### Initial value:

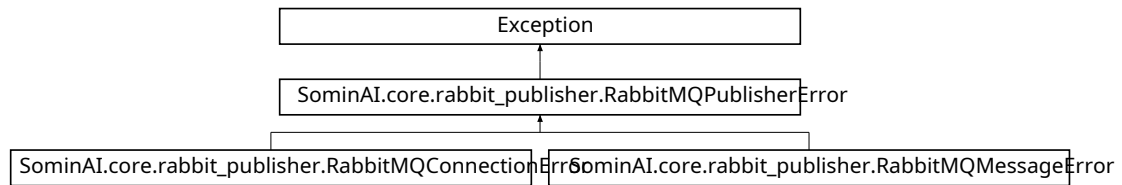
```
= await aio_pika.connect_robust(  
    f'amqp://{self.username}:{self.password}@{self.host}/'  
)
```

The documentation for this class was generated from the following file:

- core/rabbit\_publisher.py

## 3.20 SominAI.core.rabbit\_publisher.RabbitMQPublisherError Class Reference

Inheritance diagram for SominAI.core.rabbit\_publisher.RabbitMQPublisherError:



### 3.20.1 Detailed Description

Base exception for RabbitMQPublisher.

The documentation for this class was generated from the following file:

- core/rabbit\_publisher.py

## 3.21 SominAI.core.redis\_manager.RedisManager Class Reference

### Public Member Functions

- `__init__` (self, str config\_path="configs/config.yaml")
- None `connect` (self)
- None `close` (self)
- None `set_status` (self, str task\_id, TaskData task\_data)
- dict|None `get_status` (self, str task\_id)
- None `update_task_status` (self, str task\_id, str status, TaskData task\_data, None result=None)
- None `delete_task` (self, str task\_id)

### Public Attributes

- **host** = config.get("host", "localhost")
- **port** = config.get("port", 6379)
- **db** = config.get("db", 0)
- **logger** = Logger
- **exception\_handler** = ExceptionHandler()
- redis.Redis|None **redis\_client** = None

### 3.21.1 Detailed Description

Asynchronous manager for interactions with the Redis database for task status storage.



## 3.21.2 Member Function Documentation

### 3.21.2.1 close()

None SominAI.core.redis\_manager.RedisManager.close (  
self)

Closes the Redis connection asynchronously.

### 3.21.2.2 connect()

None SominAI.core.redis\_manager.RedisManager.connect (  
self)

Asynchronously connects to the Redis server.

### 3.21.2.3 delete\_task()

None SominAI.core.redis\_manager.RedisManager.delete\_task (  
self,  
str task\_id)

Deletes a task from Redis asynchronously.

### 3.21.2.4 get\_status()

dict | None SominAI.core.redis\_manager.RedisManager.get\_status (  
self,  
str task\_id)

Retrieves the status of a task from Redis asynchronously.

### 3.21.2.5 set\_status()

None SominAI.core.redis\_manager.RedisManager.set\_status (  
self,  
str task\_id,  
[TaskData](#) task\_data)

Stores the status of a task in Redis asynchronously.

### 3.21.2.6 update\_task\_status()

```
None SominAI.core.redis_manager.RedisManager.update_task_status (
    self,
    str task_id,
    str status,
    TaskData | None result = None)
```

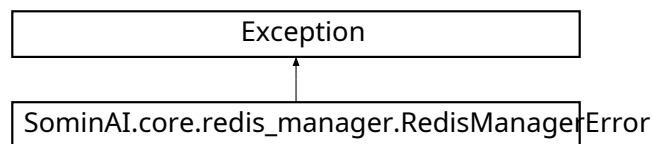
Updates the status and result of a task in Redis asynchronously.

The documentation for this class was generated from the following file:

- core/redis\_manager.py

## 3.22 SominAI.core.redis\_manager.RedisManagerError Class Reference

Inheritance diagram for SominAI.core.redis\_manager.RedisManagerError:



### 3.22.1 Detailed Description

Custom exception for RedisManager.

The documentation for this class was generated from the following file:

- core/redis\_manager.py

## 3.23 SominAI.core.result\_processor.ResultProcessor Class Reference

### Public Member Functions

- `__init__` (self, str rabbit\_config\_path, str redis\_config\_path, dict alert\_config)
- `connect` (self)
- `process_results` (self)
- `close` (self)

### Public Attributes

- `redis_manager` = RedisManager(redis\_config\_path)
- `rabbit_publisher` = RabbitMQPublisher(rabbit\_config\_path)
- `alert_handler` = AlertHandler.get\_instance(alert\_config)
- str `result_queue` = "crawler.result"

### 3.23.1 Detailed Description

Asynchronously processes completed tasks from the 'crawler.result' queue.

### 3.23.2 Member Function Documentation

#### 3.23.2.1 close()

```
SominAI.core.result_processor.ResultProcessor.close (  
    self)
```

Closes connections to RabbitMQ and Redis.

#### 3.23.2.2 connect()

```
SominAI.core.result_processor.ResultProcessor.connect (  
    self)
```

Establishes connections to RabbitMQ and Redis.

#### 3.23.2.3 process\_results()

```
SominAI.core.result_processor.ResultProcessor.process_results (  
    self)
```

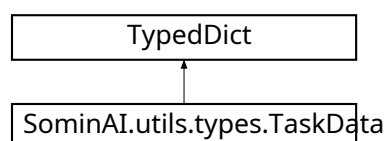
Processes results from the RabbitMQ result queue asynchronously.

The documentation for this class was generated from the following file:

- core/result\_processor.py

## 3.24 SominAI.utils.types.TaskData Class Reference

Inheritance diagram for SominAI.utils.types.TaskData:



### Static Public Attributes

- str **region** | None
- dict **result** | None

### 3.24.1 Detailed Description

TypedDict for task data stored in Redis.

The documentation for this class was generated from the following file:

- `utils/types.py`

## 3.25 SominAI.core.task\_manager.TaskManager Class Reference

### Public Member Functions

- `__init__` (self, str redis\_config\_path, str rabbit\_config\_path)
- str `create_task` (self, str keyword)
- `TaskData` | None `get_task_status` (self, str task\_id)
- `update_task_status` (self, str task\_id, str status, dict data, None result=None)

### Public Attributes

- `redis_manager` = `RedisManager`(redis\_config\_path)
- `rabbit_publisher` = `RabbitMQPublisher`(rabbit\_config\_path)
- `logger` = `Logger`

### Protected Member Functions

- bool `_is_valid_task_data` (self, `TaskData` | dict data)

### 3.25.1 Detailed Description

Manages tasks, including creating, updating statuses, and storing results.

This class interacts with Redis for status management and RabbitMQ for task queueing.

### 3.25.2 Constructor & Destructor Documentation

#### 3.25.2.1 `__init__()`

```
SominAI.core.task_manager.TaskManager.__init__(
    self,
    str redis_config_path,
    str rabbit_config_path)
```

Initializes the TaskManager with dependencies.

:param redis\_config\_path: Path to the Redis configuration file.  
:param rabbit\_config\_path: Path to the RabbitMQ configuration file.

### 3.25.3 Member Function Documentation

#### 3.25.3.1 `_is_valid_task_data()`

```
bool SominAI.core.task_manager.TaskManager._is_valid_task_data (  
    self,  
    TaskData | dict data)    [protected]
```

Validates the structure of task data.

:param data: Data to validate.

:return: True if valid, False otherwise.

#### 3.25.3.2 `create_task()`

```
str SominAI.core.task_manager.TaskManager.create_task (  
    self,  
    str keyword)
```

Asynchronously creates a new task and adds it to the queue.

:param keyword: Keyword to be used for crawling.

:return: Unique task ID.

#### 3.25.3.3 `get_task_status()`

```
TaskData | None SominAI.core.task_manager.TaskManager.get_task_status (  
    self,  
    str task_id)
```

Retrieves the status of a task.

:param task\_id: Unique ID of the task.

:return: Task status and details if found, otherwise None.

#### 3.25.3.4 `update_task_status()`

```
SominAI.core.task_manager.TaskManager.update_task_status (  
    self,  
    str task_id,  
    str status,  
    dict | None result = None)
```

Asynchronously updates the status and result of a task.

:param task\_id: Unique ID of the task.

:param status: New status of the task (e.g., 'completed', 'failed').

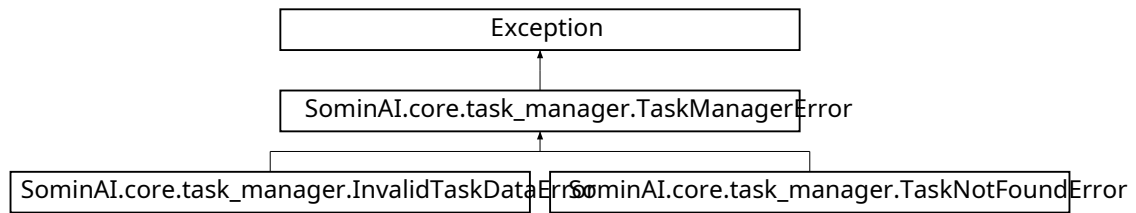
:param result: Result of the task (optional).

The documentation for this class was generated from the following file:

- core/task\_manager.py

## 3.26 SominAI.core.task\_manager.TaskManagerError Class Reference

Inheritance diagram for SominAI.core.task\_manager.TaskManagerError:



### 3.26.1 Detailed Description

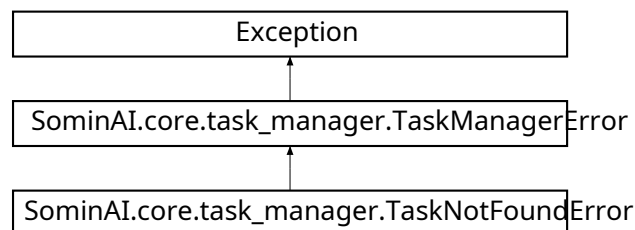
Base exception for TaskManager.

The documentation for this class was generated from the following file:

- core/task\_manager.py

## 3.27 SominAI.core.task\_manager.TaskNotFoundError Class Reference

Inheritance diagram for SominAI.core.task\_manager.TaskNotFoundError:



### Public Member Functions

- `__init__(self, str task_id)`

### Public Attributes

- `task_id = task_id`

### 3.27.1 Detailed Description

Raised when a task is not found.

The documentation for this class was generated from the following file:

- core/task\_manager.py

## 3.28 SominAI.crawler.parser.TikTokLibraryParser Class Reference

### Public Member Functions

- `__init__` (self)
- str `build_query` (self, str region, str adv\_name, ~~kwargs~~, `kwargs`)
- str `fetch_data` (self, str url)
- list[dict] `parse_data` (self, str html\_content)
- list[dict] `search_ads` (self, str region, str adv\_name, ~~kwargs~~, `kwargs`)

### Public Attributes

- `logger` = `Logger`

### Static Public Attributes

- str `BASE_URL` = "https://library.tiktok.com/ads"

### 3.28.1 Detailed Description

A universal parser for the TikTok Library search API.  
Dynamically constructs URLs based on given parameters.

### 3.28.2 Member Function Documentation

#### 3.28.2.1 `build_query()`

```
str SominAI.crawler.parser.TikTokLibraryParser.build_query (  
    self,  
    str region,  
    str adv_name,  
    * kwargs)
```

Constructs a TikTok Library query URL.

:param region: The region code (e.g., "BE", "US", "AT").  
:param adv\_name: The advertiser's name or keyword for search.  
:param kwargs: Optional parameters for the query (e.g., start\_time, end\_time, sort\_type, etc.).  
:return: Constructed URL for the TikTok Library search.

#### 3.28.2.2 `fetch_data()`

```
str SominAI.crawler.parser.TikTokLibraryParser.fetch_data (  
    self,  
    str url)
```

Fetches the HTML content of the TikTok Library page by navigating to the URL.

:param url: The URL of the TikTok Library search page.  
:return: HTML content of the page as a string.

### 3.28.2.3 parse\_data()

```
list[dict] SominAI.crawler.parser.TikTokLibraryParser.parse_data (  
    self,  
    str html_content)
```

Parses HTML content to extract advertisement details.

:param html\_content: HTML content fetched from TikTok Library.  
:return: List of parsed advertisements.

### 3.28.2.4 search\_ads()

```
list[dict] SominAI.crawler.parser.TikTokLibraryParser.search_ads (  
    self,  
    str region,  
    str adv_name,  
    * * kwargs)
```

Searches for ads in the TikTok Library with the given parameters.

:param region: The region code (e.g., "BE").  
:param adv\_name: The advertiser's name or keyword for search.  
:param kwargs: Additional parameters for customizing the search.  
:return: List of parsed advertisements.

The documentation for this class was generated from the following file:

- crawler/parser.py