Lab-5_202001123

IT314 Software Engineering Lab-5

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STATIC CODE ANALYSIS

- Tool which I used - **Mypy**

    Link of the repository : https://github.com/python-telegram-bot/python-telegram-bot

- Installing Mypy tool


```
PS C:\Users\student\Desktop\Code G30> pip install mypy
Defaulting to user installation because normal site-packages is not writeable
Requirement already satisfied: mypy in c:\users\student\appdata\roaming\python\python310\site-packages (1.1.1)
Requirement already satisfied: tomli>=1.1.0 in c:\users\student\appdata\roaming\python\python310\site-packages (from mypy) (2.0.1)
Requirement already satisfied: typing-extensions>=3.10 in c:\users\student\appdata\roaming\python\python310\site-packages (from mypy) (4.5.0)
Requirement already satisfied: mypy-extensions>=1.0.0 in c:\users\student\appdata\roaming\python\python310\site-packages (from mypy) (1.0.0)
WARNING: You are using pip version 22.0.4; however, version 23.0.1 is available.
You should consider upgrading via the 'C:\Program Files\Python310\python.exe -m pip install --upgrade pip' command.
PS C:\Users\student\Desktop\Code G30>
```

1) Code source: python-telegram-bot/examples/arbitrarycallbackdatabot.py

Output of Mypy tool:

```
PS C:\Users\student\Desktop\Code G30> py -m mypy lab5.py
lab5.py:17: error: Cannot find implementation or library stub for module named "telegram"  [import]
lab5.py:31: error: Cannot find implementation or library stub for module named "telegram.ext"  [import]
lab5.py:31: note: See https://mypy.readthedocs.io/en/stable/running_mypy.html#missing-imports
Found 2 errors in 1 file (checked 1 source file)
PS C:\Users\student\Desktop\Code G30>
```

Errors:

```
15    from typing import List, Tuple, cast
16
17    from telegram import __version__ as TG_VER
18
19    try:
20        from telegram import __version_info__
21    except ImportError:
```

```
28        f"Visit https://docs.python-telegram-bot.org/en/v{TG_VER}/examples.html"
29    )
30    from telegram import InlineKeyboardButton, InlineKeyboardMarkup, Update
31    from telegram.ext import (
32        Application,
33        CallbackQueryHandler,
34        CommandHandler,
35        ContextTypes,
36        InvalidCallbackData,
37        PicklePersistence,
38    )
39
```

- Directory named 'telegram' not found.

2) Code source:
python-telegram-bot/examples/pollbot.py

Output of Mypy tool:

```
PS C:\Users\student\Desktop\Code G30> py -m mypy lab5.py
lab5.py:12: error: Cannot find implementation or library stub for module named "telegram"  [import]
lab5.py:33: error: Cannot find implementation or library stub for module named "telegram.constants"  [import]
lab5.py:33: note: See https://mypy.readthedocs.io/en/stable/running_mypy.html#missing-imports
lab5.py:34: error: Cannot find implementation or library stub for module named "telegram.ext"  [import]
Found 3 errors in 1 file (checked 1 source file)
PS C:\Users\student\Desktop\Code G30>
```

Errors:

```
11
12    from telegram import __version__ as TG_VER
13
```

```
25    from telegram import (
26        KeyboardButton,
27        KeyboardButtonPollType,
28        Poll,
29        ReplyKeyboardMarkup,
30        ReplyKeyboardRemove,
31        Update,
32    )
33    from telegram.constants import ParseMode
34    from telegram.ext import (
35        Application,
36        CommandHandler,
37        ContextTypes,
38        MessageHandler,
39        PollAnswerHandler,
40        PollHandler,
41        filters,
42    )
```

- Module 'telegram.exe' not found.

3) Code source: python-telegram-bot/examples/rawapibot.py

Output of Mypy tool:

```
PS C:\Users\student\Desktop\Code G30> py -m mypy lab5.py
lab5.py:13: error: Skipping analyzing "telegram": module is installed, but missing library stubs or py.typed marker  [import]
lab5.py:27: error: Skipping analyzing "telegram.error": module is installed, but missing library stubs or py.typed marker  [import]
lab5.py:27: note: See https://mypy.readthedocs.io/en/stable/running_mypy.html#missing-imports
Found 2 errors in 1 file (checked 1 source file)
PS C:\Users\student\Desktop\Code G30>
```

Errors:

```
13    from telegram import __version__ as TG_VER
14
15    try:
16        from telegram import __version_info__
17    except ImportError:
18        __version_info__ = (0, 0, 0, 0, 0)  # type: ignore[assignment]  # type: ignore[assignment]
19
20    if __version_info__ < (20, 0, 0, "alpha", 1):
21        raise RuntimeError(
22            f"This example is not compatible with your current PTB version {TG_VER}. To view the "
23            f"{TG_VER} version of this example, "
24            f"visit https://docs.python-telegram-bot.org/en/v{TG_VER}/examples.html"
25        )
26    from telegram import Bot
27    from telegram.error import Forbidden, NetworkError
28
```

- Library stubs are missing.

4) Code source:
python-telegram-bot/examples/passportbot.py

Output of Mypy tool:

```
PS C:\Users\student\Desktop\Code G30> py -m mypy lab5.py
lab5.py:20: error: Skipping analyzing "telegram": module is installed, but missing library stubs or py.typed marker  [import]
lab5.py:34: error: Skipping analyzing "telegram.ext": module is installed, but missing library stubs or py.typed marker  [import]
lab5.py:34: note: See https://mypy.readthedocs.io/en/stable/running_mypy.html#missing-imports
Found 2 errors in 1 file (checked 1 source file)
PS C:\Users\student\Desktop\Code G30>
```

Errors:

```
20    from telegram import __version__ as TG_VER
21
22    try:
23        from telegram import __version_info__
24    except ImportError:
25        __version_info__ = (0, 0, 0, 0, 0)  # type: ignore[assignment]
26
27    if __version_info__ < (20, 0, 0, "alpha", 5):
28        raise RuntimeError(
29            f"This example is not compatible with your current PTB version {TG_VER}. To view the "
30            f"{TG_VER} version of this example, "
31            f"visit https://docs.python-telegram-bot.org/en/v{TG_VER}/examples.html"
32        )
33    from telegram import Update
34    from telegram.ext import Application, ContextTypes, MessageHandler, filters
35
36    # Enable logging
```

- Library stubs are missing.

5) Code source: python-telegram-bot/examples/inlineboardkey2.py

Output of Mypy tool:

```
PS C:\Users\student\Desktop\Code G30> py -m mypy lab5.py
lab5.py:19: error: Skipping analyzing "telegram": module is installed, but missing library stubs or py.typed marker  [import]
lab5.py:33: error: Skipping analyzing "telegram.ext": module is installed, but missing library stubs or py.typed marker  [import]
lab5.py:33: note: See https://mypy.readthedocs.io/en/stable/running_mypy.html#missing-imports
Found 2 errors in 1 file (checked 1 source file)
PS C:\Users\student\Desktop\Code G30>
```

Errors:

```
19    from telegram import __version__ as TG_VER
20
21    try:
22        from telegram import __version_info__
23    except ImportError:
24        __version_info__ = (0, 0, 0, 0, 0)  # type: ignore[assignment]
25
26    if __version_info__ < (20, 0, 0, "alpha", 1):
27        raise RuntimeError(
28            f"This example is not compatible with your current PTB version {TG_VER}. To view the "
29            f"{TG_VER} version of this example, "
30            f"visit https://docs.python-telegram-bot.org/en/v{TG_VER}/examples.html"
31        )
32    from telegram import InlineKeyboardButton, InlineKeyboardMarkup, Update
33    from telegram.ext import (
34        Application,
35        CallbackQueryHandler,
36        CommandHandler,
37        ContextTypes,
38        ConversationHandler,
39    )
```

- Library stubs are missing.