

Technical Contribution Report (Final; Portfolio)

Project Information

URL

Original: <https://github.com/joke2k/faker>

Fork: <https://github.com/Nikomixo/faker>

License

MIT License

<https://github.com/joke2k/faker/blob/master/LICENSE.txt>

Description

Faker is a Python library that artificially generates fake data for testing purposes. Using providers, it can generate realistic, region-specific data, such as a valid Australian address, or valid European phone numbers.

Summary of Work Product

I added several missing identification numbers to certain locale SSN providers, along with valid tests for each of them.

Here's an example of a ssn provider for Austria that I implemented.

```
def ssn(self) -> str:
    """
    https://learn.microsoft.com/en-us/microsoft-365/compliance/sit-defn-austria-social-security-number?view=o365-worldwide
    10 digits:
    - three digits that correspond to a serial number
    - one check digit
    - six digits that correspond to the birth month (DDMMYY)
    :return: a random Austrian SSN
    """

    age = datetime.timedelta(days=self.generator.random.randrange(0, 100))
    birthday = datetime.date.today() - age
    birthdate = "%02d%02d%s" % (
        birthday.day,
        birthday.month,
        str(birthday.year)[-2:],
    )

    serial = self.bothify("###")
    check = str(calculate_luhn(float(serial + birthdate)))

    ssn = serial + check + birthdate

    return ssn
```

And the corresponding tests for this provider.

```
class TestDeAT(unittest.TestCase):
    def setUp(self):
        self.fake = Faker("de_AT")
        Faker.seed(0)

    def test_ssn(self):
        for _ in range(100):
            assert re.search(r"^\d{4}(\d{1-9}|[1-2][0-9]|3[0-1])(\d{1-9}|1[0-2])\d{2}$", self.fake.ssn())

    def test_tin(self):
        for _ in range(100):
            assert re.search(r'^\d{2}-\d{3}/\d{4}$', self.fake.tin())

    def test_vat_id(self):
        for _ in range(100):
            assert re.search(r"^ATU\d{8}$", self.fake.vat_id())
```

The test suite results:

```
py39: OK (63.77=setup[26.73]+cmd[15.19,15.89,5.95] seconds)
congratulations :) (63.95 seconds)
```

I also implemented a few others, which is documented in my pull request below.

My pull request is located here: <https://github.com/joke2k/faker/pull/1875>

The screenshot shows a GitHub pull request interface. At the top, the title is "New Identification Numbers for several locales. #1875". Below the title, a green button says "Open". To the right, it says "Nikomixo wants to merge 10 commits into `joke2k:master` from `Nikomixo:fix/master/locale_ssns`". Below this, there are tabs for "Conversation" (0), "Commits" (10), "Checks" (0), and "Files changed" (6). The main content area shows a comment from "Nikomixo" titled "What does this change". The comment text is: "Adds the following:" followed by three sections: "ssn/de_AT" with a bulleted list of "• TIN" and "• SSN"; "ssn/de_DE" with a bulleted list of "• TIN"; and "ssn.sl_SI" with a bulleted list of "• TIN". Below these sections, it says "Tests for all of the above." and "Renamed `ssn/dk_DK` to `ssn/da_DK` to match with other locales." The comment also has sections titled "What was wrong" (with text "Some locale SSN providers were missing various forms of identification numbers.") and "How this fixes it" (with text "Adds a few missing providers."). At the bottom of the comment is a smiley face emoji.

Here are the diff files of all the changes:

<https://github.com/joke2k/faker/pull/1875/files>