Dear candidate,

Thank you for showing interest in joining our dynamic organisation. As part of the Corigine recruitment process, we have designed a solution-driven challenge to evaluate technical problem-solving capabilities.

You need to create a program that solves a numerical algorithmic problem described below. The task is designed to evaluate your ability to utilise new tools, coding, documentation, and error checking. Good luck!

Algorithmic Problem:

For factorial, $n!$ means $n \times (n-1) \times (n-2) \cdots 3 \times 2 \times 1$
For example, $10! = 10 \times 9 \times 8 \cdots 3 \times 2 \times 1 = 3628800$
Finding the sum of all the digitals for $10!$ is $3 + 6 + 2 + 8 + 8 + 0 + 0 = 27$.
Write a program to calculate the sum of any parsed factorial's digits

Requirements

Your solution should adhere to the following:

- Use Python3.
- Use numpy for any math operations.
- If possible, avoid casting variables.
- Follow good programming practices.
- Be packaged and executable as a Docker container (see sample output below).

Sample output

```
$ docker run --rm factorial-digits 10
>>
27
$ docker run --rm factorial-digits 100
>>
648
$ docker run --rm factorial-digits 1000
>>
10539
```

Submission

Provide a compressed tarball <yourname>.tar.gz of the Docker build directory which contains everything needed to build a Docker container with the above-described functionality. Initialize the build directory as a git repo and include a README in markdown which describes the program.