3-4: Operator overloading and formatting (Practice)

Artem Pavlov, TII, Abu Dhabi, 05.05.2024

Create new crate

- Create new branch in the repository p34

- Create new library crate p34

- Check that p34 is listed as a member of the workspace in the root Cargo.toml

BigUint library

- Implement in lib.rs a simplified BigUint4096 type, i.e. unsigned 4096 bit integer

- Under the hood use array of u64s

- Browse the standard library docs for potentially useful methods: https://doc.rust-lang.org/stable/std/primitive.u64.html

- Implement basic arithmetic traits

- Implement conversion methods from hex-encoded &str and to hex-encoded String (be careful about endianness)

- Add integration tests for the type

Extra task

- Make BigUint type with generic size

- You can use BigUint<const N: usize>, where N is number of u64s used by the type, i.e. size of the integer in bits will be equal to 64 * N