I\_principle.md 2025-04-25

## Liskov Substitution Principle (LSP)

Subtypes must be substitutable for their base types.

That is, if class B is a substitute of A, it should behave like A when used in place of it.

Already applied in the previous principle. Let us make it automatic.

```
class ConfigParserFactory:
@staticmethod
def get_parser(path):
    ext = os.path.splitext(path)[-1].lower()

    if ext in [".yaml", ".yml"]:
        return YamlConfigParser()
    elif ext == ".json":
        return JsonConfigParser()
    else:
        raise ValueError(f"Unsupported extension: {ext}")
```

class B is YamlConfigParser and class A is JsonConfigParser. Therefore, no matters which parser is going to use, the code behaves the same. The reason behind it is that both class A and B used abstract base class and fulfills the abstract method requirements, i.e., implementation of load () function.