Documentation and Usage of `quasar` Sanitizers

`quasar` sanitizers is a new feature that allows to enable or disable various sanitizers in any `quasar` server using the server build configuration. Sanitizers are tools that help in finding bugs, memory leaks, and undefined behavior in your code during the compilation or execution process.

This feature is implemented by adding some CMake code to `quasar`. One can enable or disable different sanitizers depending on your needs. The following is the documentation for the `quasar` sanitizers feature, along with some examples of how to use it.

Usage

To use the `quasar` sanitizers feature, one needs to enable or disable specific sanitizers in their server's configuration CMake file. Here are some examples:

Example 1: Enable Address Sanitizer

To enable the Address Sanitizer, add the following line to your server's configuration CMake file:

```
set(ENABLE_QUASAR_SANITIZERS ON)
set(ENABLE_SANITIZER_ADDRESS ON)
```

Example 2: Enable Leak Sanitizer

To enable the Leak Sanitizer, add the following line to the server's configuration CMake file:

```
set(ENABLE_QUASAR_SANITIZERS ON)
set(ENABLE_SANITIZER_LEAK ON)
```

Example 3: Enable Multiple Sanitizers

It is possible to enable multiple sanitizers at once. For example, to enable both the Address and Leak sanitizers, add the following lines to the server's configuration CMake file:

```
set(ENABLE_QUASAR_SANITIZERS ON)
```

```
set(ENABLE_SANITIZER_ADDRESS ON)
set(ENABLE_SANITIZER_LEAK ON)
```

Limitations

Some sanitizers cannot be used together. The `quasar` sanitizers feature will issue a warning if you try to enable incompatible sanitizers. For example, Thread sanitizer does not work with Address and Leak sanitizer enabled. Similarly, Memory sanitizer does not work with Address, Thread, and Leak sanitizers enabled.

Conclusion

The `quasar` sanitizers feature is a convenient way to enable or disable various sanitizers in any `quasar` server. This feature is designed to help find and fix bugs, memory leaks, and undefined behavior in users code during the compilation or execution process. With this feature, one can easily configure and use sanitizers in their project, by modifying the server's configuration CMake file.