Copilot

Certainly! Let me explain the `cmake` command you provided:

1. `cmake`: This is the command-line utility for configuring and generating build files for your project. It reads the `CMakeLists.txt` file in your project directory and generates platform-specific build files (e.g., Makefiles, Visual Studio project files).

2. `-Dgtest_build_samples=ON`: This sets a CMake variable named `gtest_build_samples` to the value `ON`. The `gtest_build_samples` variable controls whether Google Test (a C++ testing framework) sample projects should be built. By setting it to `ON`, you enable the compilation of these sample projects.

3. `-DCMAKE_BUILD_TYPE=Debug`: This specifies the build type. The `CMAKE_BUILD_TYPE` variable determines how the code is optimized and whether debug information is included. Here are the common build types:

    - `Debug`: Generates an unoptimized build with debug symbols. Useful for debugging and profiling.
    - `Release`: Optimizes the code for performance. Debug symbols are usually excluded.
    - `RelWithDebInfo`: Optimized build with debug symbols included. Suitable for profiling.
    - `MinSizeRel`: Minimizes the binary size while still optimizing for performance.

    In your case, `Debug` means you're building with debug symbols for debugging purposes .

Remember that the choice of build type depends on your specific use case. For production releases, you'd typically choose `Release`. 😊