

Long Lambda Function For Inter-language Binding (LLF)

Example: As shown in Listing 1, this segment of code is a binding using Pybind11 ¹, where TFE_GETTASKSTATES is the name of the Python function, and the subsequent lambda function serves as the native implementation of TFE_GETTASKSTATES. This lambda function has reached 50 lines, making it quite bulky in the process of binding.

```
1 m.def("TFE_GetTaskStates", [](py::handle& ctx,
2                               const std::vector<std::string>& job_names,
3                               const std::vector<int>& task_nums) {
4     tensorflow::Safe_TF_StatusPtr status =
5         tensorflow::make_safe(TF_NewStatus());
6     ...
7
45     output[i] = py::none();
46 }
47 }
48 tensorflow::MaybeRaiseRegisteredFromTFStatus(status.get());
49 return tensorflow::PyoOrThrow(output.release().ptr());
50 });
```

Listing 1. Design Smell - Long Lambda Function For Inter-language Binding

¹https://github.com/tensorflow/tensorflow/blob/v2.12.0/tensorflow/python/tfe_wrapper.cc#L985-L1034