# Webpack - Ideas List
## Google Summer of Code 2020

- ## CLI: Tooling

**Difficulty**: Medium
**Mentors**: Even Stensberg, Dhruvdutt Jadhav, Rishabh Chawla

### Introduction
Webpack CLI is under development and in a beta now. We have work to be done and need to solve GitHub issues that we have. In the project, you need to understand webpack fundamentals, understand how webpack CLI works and be able to understand solving issues in the context of a traditional developer. The issues that need to be solved are for instance smoke Tests that verify webpack works over a long duration and compiles correctly each time, developing the [new interface](#) (how webpack visually looks) and [End-to-End](#) tests that verify that webpack behaves as intended.

### Prerequisites
Knowledge about JavaScript, Abstract Syntax Trees, Node.JS

- ## Webpack v5: Documentation

**Difficulty**: Medium
**Mentors**: Even Stensberg, Rishabh Chawla

### Introduction
Webpack is soon to publish a [new version](#) of webpack. This project involves writing documentation for webpack v5. To be able to complete this project, you need to know the fundamentals of web development and webpack. During this project, you need to experiment with the new API, debug error messages and give insight to how webpack v5 works. The end result of this is that developers are able to use and understand the newest version of webpack.

### Prerequisites
Knowledge about JavaScript, Node.JS, Webpack

## - Webpack: Web Bundle

**Difficulty**: Hard
**Mentors**: Even Stensberg

### Introduction

Having to compile with a Command Line is good, but having to import a script for webpack to run is even better. In this project, you should provide a way for webpack to run in the browser through a CDN. To solve this project, you need experience in webpack CLI, webpack internals, bundling and being able to solve problems creatively. End developers will be able to write front-end without having to interact with webpack through the CLI. Additionally, you are able to create a webpack executable/binary that installs webpack on a computer, such as a .exe  file.

### Prerequisites

Knowledge about JavaScript, Abstract Syntax Trees, Node.JS, Webpack

## - Webpack: Interactive

**Difficulty**: Medium
**Mentors**: Even Stensberg

### Introduction

In this project you will develop a watch feature for webpack that runs webpack in [watch mode](), recompiles on interaction and listens for feedback from a user after each compilation. In addition, the feature is able to pause a compilation, read configuration files and recompile on configuration changes and monitor an application for performance improvements. In order to solve this project, you need to familiarize yourself with webpack CLI internals, readLine from NodeJS and be able to solve issues creatively. Additionally, you need to have strong NodeJS skills. The end result of this, is that a developer is able to use webpack in a better way and able to run webpack without having to recompile every time a change occurs.

### Prerequisites

Knowledge about JavaScript, Abstract Syntax Trees, Node.JS