This example shows how to create an explicit vendor chunk as well as a common chunk for code shared among entry points. In this example, we have 3 entry points: `pageA`, `pageB`, and `pageC`. Those entry points share some of the same utility modules, but not others. This configuration will pull out any modules common to at least 2 bundles and place it in the `common` bundle instead, all while keeping the specified vendor libraries in their own bundle by themselves.

To better understand, here are the entry points and which utility modules they depend on:

- `pageA`
  - `utility1`
  - `utility2`
- `pageB`
  - `utility2`
  - `utility3`
- `pageC`
  - `utility2`
  - `utility3`

Given this configuration, webpack will produce the following bundles:

- `vendor`
  - webpack runtime
  - `vendor1`
  - `vendor2`
- `common`
  - `utility2`
  - `utility3`
- `pageA`
  - `pageA`
  - `utility1`
- `pageB`
  - `pageB`
- `pageC`
  - `pageC`

With this bundle configuration, you would load your third party libraries, then your common application code, then your page-specific application code.

webpack.config.js

```js
var path = require("path");

module.exports = {
    // mode: "development" || "production",
    entry: {
        pageA: "./pageA",
```

```
        pageB: "./pageB",
        pageC: "./pageC"
    },
    optimization: {
        chunkIds: "named",
        splitChunks: {
            cacheGroups: {
                commons: {
                    chunks: "initial",
                    minChunks: 2,
                    maxInitialRequests: 5, // The default limit is too small to
showcase the effect
                    minSize: 0 // This is example is too small to create commons
chunks
                },
                vendor: {
                    test: /node_modules/,
                    chunks: "initial",
                    name: "vendor",
                    priority: 10,
                    enforce: true
                }
            }
        }
    },
    output: {
        path: path.join(__dirname, "dist"),
        filename: "[name].js"
    }
};
```

dist/vendor.js

```
(self["webpackChunk"] = self["webpackChunk"] || []).push([["vendor"],{

/***/ 1:
/*!********************************!*\
  !*** ./node_modules/vendor1.js ***!
  \********************************/
/*! unknown exports (runtime-defined) */
/*! runtime requirements: module */
/*! CommonJS bailout: module.exports is used directly at 1:0-14 */
/***/ ((module) => {

module.exports = "vendor1";

/***/ }),

/***/ 5:
```

```
/*!********************************!*\
  !*** ./node_modules/vendor2.js ***!
  \********************************/
/*! unknown exports (runtime-defined) */
/*! runtime requirements: module */
/*! CommonJS bailout: module.exports is used directly at 1:0-14 */
/***/ ((module) => {

module.exports = "vendor2";

/***/ })

}]);
```

dist/commons-utility2_js.js

```
(self["webpackChunk"] = self["webpackChunk"] || []).push([["commons-utility2_js"],{

/***/ 3:
/*!*******************!*\
  !*** ./utility2.js ***!
  \*******************/
/*! unknown exports (runtime-defined) */
/*! runtime requirements: module */
/*! CommonJS bailout: module.exports is used directly at 1:0-14 */
/***/ ((module) => {

module.exports = "utility2";

/***/ })

}]);
```

dist/commons-utility3_js.js

```
(self["webpackChunk"] = self["webpackChunk"] || []).push([["commons-utility3_js"],{

/***/ 6:
/*!*******************!*\
  !*** ./utility3.js ***!
  \*******************/
/*! unknown exports (runtime-defined) */
/*! runtime requirements: module */
/*! CommonJS bailout: module.exports is used directly at 1:0-14 */
/***/ ((module) => {

module.exports = "utility3";
```

```
/***/ })

}]);
```

dist/pageA.js

```
/******/ (() => { // webpackBootstrap
/******/     var __webpack_modules__ = ([
/* 0 */
/*!*******************!*\
  !*** ./pageA.js ***!
  \*******************/
/*! unknown exports (runtime-defined) */
/*! runtime requirements: module, __webpack_require__ */
/*! CommonJS bailout: module.exports is used directly at 5:0-14 */
/***/ ((module, __unused_webpack_exports, __webpack_require__) => {

var vendor1 = __webpack_require__(/*! vendor1 */ 1);
var utility1 = __webpack_require__(/*! ./utility1 */ 2);
var utility2 = __webpack_require__(/*! ./utility2 */ 3);

module.exports = "pageA";


/***/ }),
/* 1 */,
/* 2 */
/*!*********************!*\
  !*** ./utility1.js ***!
  \*********************/
/*! unknown exports (runtime-defined) */
/*! runtime requirements: module */
/*! CommonJS bailout: module.exports is used directly at 1:0-14 */
/***/ ((module) => {

module.exports = "utility1";

/***/ })
/******/     ]);
```

▶ /* webpack runtime code */

```
/******/
/******/     // startup
/******/     // Load entry module and return exports
/******/     // This entry module depends on other loaded chunks and execution
need to be delayed
/******/     var __webpack_exports__ = __webpack_require__.O(undefined,
```

```
["vendor","commons-utility2_js"], () => (__webpack_require__(0)))
/******/            __webpack_exports__ = __webpack_require__.O(__webpack_exports__);
/******/
/******/ })()
;
```

dist/pageB.js

```
/******/ (() => { // webpackBootstrap
/******/            var __webpack_modules__ = ({

/***/ 4:
/*!*******************!*\
  !*** ./pageB.js ***!
  \*******************/
/*! unknown exports (runtime-defined) */
/*! runtime requirements: module, __webpack_require__ */
/*! CommonJS bailout: module.exports is used directly at 5:0-14 */
/***/ ((module, __unused_webpack_exports, __webpack_require__) => {

var vendor2 = __webpack_require__(/*! vendor2 */ 5);
var utility2 = __webpack_require__(/*! ./utility2 */ 3);
var utility3 = __webpack_require__(/*! ./utility3 */ 6);

module.exports = "pageB";



/***/ })

/******/            });
```

▶ /* webpack runtime code */

```
/******/
/******/            // startup
/******/            // Load entry module and return exports
/******/            // This entry module depends on other loaded chunks and execution
need to be delayed
/******/            var __webpack_exports__ = __webpack_require__.O(undefined,
["vendor","commons-utility2_js","commons-utility3_js"], () =>
(__webpack_require__(4)))
/******/            __webpack_exports__ = __webpack_require__.O(__webpack_exports__);
/******/
/******/ })()
;
```

dist/pageC.js

```
/******/ (() => { // webpackBootstrap
/******/        var __webpack_modules__ = ({

/***/ 7:
/*!*******************!*\
  !*** ./pageC.js ***!
  \*******************/
/*! unknown exports (runtime-defined) */
/*! runtime requirements: module, __webpack_require__ */
/*! CommonJS bailout: module.exports is used directly at 4:0-14 */
/***/ ((module, __unused_webpack_exports, __webpack_require__) => {

var utility2 = __webpack_require__(/*! ./utility2 */ 3);
var utility3 = __webpack_require__(/*! ./utility3 */ 6);

module.exports = "pageC";

/***/ })

/******/        });
```

▶ /* webpack runtime code */

```
/******/
/******/        // startup
/******/        // Load entry module and return exports
/******/        // This entry module depends on other loaded chunks and execution
need to be delayed
/******/        var __webpack_exports__ = __webpack_require__.O(undefined,
["commons-utility2_js","commons-utility3_js"], () => (__webpack_require__(7)))
/******/        __webpack_exports__ = __webpack_require__.O(__webpack_exports__);
/******/
/******/ })()
;
```

Info

Unoptimized

```
assets by chunk 768 bytes (id hint: commons)
  asset commons-utility2_js.js 384 bytes [emitted] (id hint: commons)
  asset commons-utility3_js.js 384 bytes [emitted] (id hint: commons)
asset pageA.js 6.08 KiB [emitted] (name: pageA)
asset pageB.js 5.8 KiB [emitted] (name: pageB)
asset pageC.js 5.74 KiB [emitted] (name: pageC)
asset vendor.js 737 bytes [emitted] (name: vendor) (id hint: vendor)
Entrypoint pageA 7.17 KiB = vendor.js 737 bytes commons-utility2_js.js 384 bytes
pageA.js 6.08 KiB
```

```
Entrypoint pageB 7.27 KiB = vendor.js 737 bytes commons-utility2_js.js 384 bytes
commons-utility3_js.js 384 bytes pageB.js 5.8 KiB
Entrypoint pageC 6.49 KiB = commons-utility2_js.js 384 bytes commons-utility3_js.js
384 bytes pageC.js 5.74 KiB
chunk (runtime: pageA, pageB, pageC) commons-utility2_js.js (id hint: commons) 28
bytes [initial] [rendered] split chunk (cache group: commons)
  > ./pageA pageA
  > ./pageB pageB
  > ./pageC pageC
  ./utility2.js 28 bytes [built] [code generated]
    [used exports unknown]
    cjs require ./utility2 ./pageA.js 3:15-36
    cjs require ./utility2 ./pageB.js 2:15-36
    cjs require ./utility2 ./pageC.js 1:15-36
    cjs self exports reference ./utility2.js 1:0-14
chunk (runtime: pageB, pageC) commons-utility3_js.js (id hint: commons) 28 bytes
[initial] [rendered] split chunk (cache group: commons)
  > ./pageB pageB
  > ./pageC pageC
  ./utility3.js 28 bytes [built] [code generated]
    [used exports unknown]
    cjs require ./utility3 ./pageB.js 3:15-36
    cjs require ./utility3 ./pageC.js 2:15-36
    cjs self exports reference ./utility3.js 1:0-14
chunk (runtime: pageA) pageA.js (pageA) 165 bytes (javascript) 2.46 KiB (runtime)
[entry] [rendered]
  > ./pageA pageA
  runtime modules 2.46 KiB 3 modules
  dependent modules 28 bytes [dependent] 1 module
  ./pageA.js 137 bytes [built] [code generated]
    [used exports unknown]
    cjs self exports reference ./pageA.js 5:0-14
    entry ./pageA pageA
chunk (runtime: pageB) pageB.js (pageB) 137 bytes (javascript) 2.46 KiB (runtime)
[entry] [rendered]
  > ./pageB pageB
  runtime modules 2.46 KiB 3 modules
  ./pageB.js 137 bytes [built] [code generated]
    [used exports unknown]
    cjs self exports reference ./pageB.js 5:0-14
    entry ./pageB pageB
chunk (runtime: pageC) pageC.js (pageC) 102 bytes (javascript) 2.46 KiB (runtime)
[entry] [rendered]
  > ./pageC pageC
  runtime modules 2.46 KiB 3 modules
  ./pageC.js 102 bytes [built] [code generated]
    [used exports unknown]
    cjs self exports reference ./pageC.js 4:0-14
    entry ./pageC pageC
chunk (runtime: pageA, pageB) vendor.js (vendor) (id hint: vendor) 54 bytes [initial]
[rendered] split chunk (cache group: vendor) (name: vendor)
  > ./pageA pageA
```

```
  > ./pageB pageB
  ./node_modules/vendor1.js 27 bytes [built] [code generated]
    [used exports unknown]
    cjs self exports reference ./node_modules/vendor1.js 1:0-14
    cjs require vendor1 ./pageA.js 1:14-32
  ./node_modules/vendor2.js 27 bytes [built] [code generated]
    [used exports unknown]
    cjs self exports reference ./node_modules/vendor2.js 1:0-14
    cjs require vendor2 ./pageB.js 1:14-32
webpack 5.51.1 compiled successfully
```

Production mode

```
assets by chunk 212 bytes (id hint: commons)
  asset commons-utility2_js.js 106 bytes [emitted] [minimized] (id hint: commons)
  asset commons-utility3_js.js 106 bytes [emitted] [minimized] (id hint: commons)
asset pageA.js 1.01 KiB [emitted] [minimized] (name: pageA)
asset pageB.js 1 KiB [emitted] [minimized] (name: pageB)
asset pageC.js 1010 bytes [emitted] [minimized] (name: pageC)
asset vendor.js 121 bytes [emitted] [minimized] (name: vendor) (id hint: vendor)
Entrypoint pageA 1.23 KiB = vendor.js 121 bytes commons-utility2_js.js 106 bytes
pageA.js 1.01 KiB
Entrypoint pageB 1.33 KiB = vendor.js 121 bytes commons-utility2_js.js 106 bytes
commons-utility3_js.js 106 bytes pageB.js 1 KiB
Entrypoint pageC 1.19 KiB = commons-utility2_js.js 106 bytes commons-utility3_js.js
106 bytes pageC.js 1010 bytes
chunk (runtime: pageA, pageB, pageC) commons-utility2_js.js (id hint: commons) 28
bytes [initial] [rendered] split chunk (cache group: commons)
  > ./pageA pageA
  > ./pageB pageB
  > ./pageC pageC
  ./utility2.js 28 bytes [built] [code generated]
    [used exports unknown]
    cjs require ./utility2 ./pageA.js 3:15-36
    cjs require ./utility2 ./pageB.js 2:15-36
    cjs require ./utility2 ./pageC.js 1:15-36
    cjs self exports reference ./utility2.js 1:0-14
chunk (runtime: pageB, pageC) commons-utility3_js.js (id hint: commons) 28 bytes
[initial] [rendered] split chunk (cache group: commons)
  > ./pageB pageB
  > ./pageC pageC
  ./utility3.js 28 bytes [built] [code generated]
    [used exports unknown]
    cjs require ./utility3 ./pageB.js 3:15-36
    cjs require ./utility3 ./pageC.js 2:15-36
    cjs self exports reference ./utility3.js 1:0-14
chunk (runtime: pageA) pageA.js (pageA) 165 bytes (javascript) 2.46 KiB (runtime)
[entry] [rendered]
  > ./pageA pageA
  runtime modules 2.46 KiB 3 modules
  dependent modules 28 bytes [dependent] 1 module
```

```
    ./pageA.js 137 bytes [built] [code generated]
      [used exports unknown]
      cjs self exports reference ./pageA.js 5:0-14
      entry ./pageA pageA
chunk (runtime: pageB) pageB.js (pageB) 137 bytes (javascript) 2.46 KiB (runtime)
[entry] [rendered]
  > ./pageB pageB
  runtime modules 2.46 KiB 3 modules
  ./pageB.js 137 bytes [built] [code generated]
    [used exports unknown]
    cjs self exports reference ./pageB.js 5:0-14
    entry ./pageB pageB
chunk (runtime: pageC) pageC.js (pageC) 102 bytes (javascript) 2.46 KiB (runtime)
[entry] [rendered]
  > ./pageC pageC
  runtime modules 2.46 KiB 3 modules
  ./pageC.js 102 bytes [built] [code generated]
    [used exports unknown]
    cjs self exports reference ./pageC.js 4:0-14
    entry ./pageC pageC
chunk (runtime: pageA, pageB) vendor.js (vendor) (id hint: vendor) 54 bytes [initial]
[rendered] split chunk (cache group: vendor) (name: vendor)
  > ./pageA pageA
  > ./pageB pageB
  ./node_modules/vendor1.js 27 bytes [built] [code generated]
    [used exports unknown]
    cjs self exports reference ./node_modules/vendor1.js 1:0-14
    cjs require vendor1 ./pageA.js 1:14-32
  ./node_modules/vendor2.js 27 bytes [built] [code generated]
    [used exports unknown]
    cjs self exports reference ./node_modules/vendor2.js 1:0-14
    cjs require vendor2 ./pageB.js 1:14-32
webpack 5.51.1 compiled successfully
```