This is a simple example that shows the usage of WebAssembly.

WebAssembly modules can be imported like other async modules with `import` or `import()`. When importing, they are downloaded and instantiated in a streaming way.

example.js

```
import { add } from "./add.wasm";
import {
    add as mathAdd,
    factorial,
    factorialJavascript,
    fibonacci,
    fibonacciJavascript
} from "./math";

console.log(add(22, 2200));
console.log(mathAdd(10, 101));
console.log(factorial(15));
console.log(factorialJavascript(15));
console.log(fibonacci(15));
console.log(fibonacciJavascript(15));
timed("wasm factorial", () => factorial(1500));
timed("js factorial", () => factorialJavascript(1500));
timed("wasm fibonacci", () => fibonacci(22));
timed("js fibonacci", () => fibonacciJavascript(22));

function timed(name, fn) {
    if (!console.time || !console.timeEnd) return fn();
    // warmup
    for (var i = 0; i < 10; i++) fn();
    console.time(name);
    for (var i = 0; i < 5000; i++) fn();
    console.timeEnd(name);
}
```

math.js

```
import { add } from "./add.wasm";
import { factorial } from "./factorial.wasm";
import { fibonacci } from "./fibonacci.wasm";

export { add, factorial, fibonacci };

export function factorialJavascript(i) {
    if (i < 1) return 1;
    return i * factorialJavascript(i - 1);
}
```

```
export function fibonacciJavascript(i) {
    if (i < 2) return 1;
    return fibonacciJavascript(i - 1) + fibonacciJavascript(i - 2);
}
```

dist/output.js

```
/******/ (() => { // webpackBootstrap
/******/ 	"use strict";
/******/ 	var __webpack_modules__ = ([
/* 0 */
/*!*********************!*\
  !*** ./example.js ***!
  \*********************/
/*! namespace exports */
/*! exports [not provided] [no usage info] */
/*! runtime requirements: __webpack_require__, __webpack_require__.r,
__webpack_exports__, module, __webpack_require__.a, __webpack_require__.* */
/***/ ((module, __webpack_exports__, __webpack_require__) => {

__webpack_require__.a(module, async (__webpack_handle_async_dependencies__) => {
__webpack_require__.r(__webpack_exports__);
/* harmony import */ var _add_wasm__WEBPACK_IMPORTED_MODULE_0__ =
__webpack_require__(/*! ./add.wasm */ 1);
/* harmony import */ var _math__WEBPACK_IMPORTED_MODULE_1__ =
__webpack_require__(/*! ./math */ 2);
var __webpack_async_dependencies__ =
__webpack_handle_async_dependencies__([_math__WEBPACK_IMPORTED_MODULE_1__,
_add_wasm__WEBPACK_IMPORTED_MODULE_0__]);
([_math__WEBPACK_IMPORTED_MODULE_1__, _add_wasm__WEBPACK_IMPORTED_MODULE_0__] =
__webpack_async_dependencies__.then ? await __webpack_async_dependencies__ :
__webpack_async_dependencies__);



console.log((0,_add_wasm__WEBPACK_IMPORTED_MODULE_0__.add)(22, 2200));
console.log((0,_math__WEBPACK_IMPORTED_MODULE_1__.add)(10, 101));
console.log((0,_math__WEBPACK_IMPORTED_MODULE_1__.factorial)(15));
console.log((0,_math__WEBPACK_IMPORTED_MODULE_1__.factorialJavascript)(15));
console.log((0,_math__WEBPACK_IMPORTED_MODULE_1__.fibonacci)(15));
console.log((0,_math__WEBPACK_IMPORTED_MODULE_1__.fibonacciJavascript)(15));
timed("wasm factorial", () => (0,_math__WEBPACK_IMPORTED_MODULE_1__.factorial)
(1500));
timed("js factorial", () =>
(0,_math__WEBPACK_IMPORTED_MODULE_1__.factorialJavascript)(1500));
timed("wasm fibonacci", () => (0,_math__WEBPACK_IMPORTED_MODULE_1__.fibonacci)(22));
timed("js fibonacci", () =>
(0,_math__WEBPACK_IMPORTED_MODULE_1__.fibonacciJavascript)(22));
```

```
function timed(name, fn) {
    if (!console.time || !console.timeEnd) return fn();
    // warmup
    for (var i = 0; i < 10; i++) fn();
    console.time(name);
    for (var i = 0; i < 5000; i++) fn();
    console.timeEnd(name);
}

});

/***/ }),
/* 1 */
/*!******************!*\
  !*** ./add.wasm ***!
  \******************/
/*! namespace exports */
/*! export add [provided] [no usage info] [provision prevents renaming (no use
info)] */
/*! other exports [not provided] [no usage info] */
/*! runtime requirements: module, module.id, __webpack_exports__,
__webpack_require__.v, __webpack_require__.* */
/***/ ((module, exports, __webpack_require__) => {

module.exports = __webpack_require__.v(exports, module.id, "0eaeab8b9fa3cef100d1");

/***/ }),
/* 2 */
/*!*****************!*\
  !*** ./math.js ***!
  \*****************/
/*! namespace exports */
/*! export add [provided] [no usage info] [missing usage info prevents renaming] ->
./add.wasm .add */
/*! export factorial [provided] [no usage info] [missing usage info prevents
renaming] -> ./factorial.wasm .factorial */
/*! export factorialJavascript [provided] [no usage info] [missing usage info
prevents renaming] */
/*! export fibonacci [provided] [no usage info] [missing usage info prevents
renaming] -> ./fibonacci.wasm .fibonacci */
/*! export fibonacciJavascript [provided] [no usage info] [missing usage info
prevents renaming] */
/*! other exports [not provided] [no usage info] */
/*! runtime requirements: __webpack_require__, __webpack_exports__,
__webpack_require__.d, __webpack_require__.r, module, __webpack_require__.a,
__webpack_require__.* */
/***/ ((module, __webpack_exports__, __webpack_require__) => {

__webpack_require__.a(module, async (__webpack_handle_async_dependencies__) => {
__webpack_require__.r(__webpack_exports__);
/* harmony export */ __webpack_require__.d(__webpack_exports__, {
```

```
/* harmony export */   "add": () => (/* reexport safe */
_add_wasm__WEBPACK_IMPORTED_MODULE_0__.add),
/* harmony export */   "factorial": () => (/* reexport safe */
_factorial_wasm__WEBPACK_IMPORTED_MODULE_1__.factorial),
/* harmony export */   "fibonacci": () => (/* reexport safe */
_fibonacci_wasm__WEBPACK_IMPORTED_MODULE_2__.fibonacci),
/* harmony export */   "factorialJavascript": () => (/* binding */
factorialJavascript),
/* harmony export */   "fibonacciJavascript": () => (/* binding */
fibonacciJavascript)
/* harmony export */ });
/* harmony import */ var _add_wasm__WEBPACK_IMPORTED_MODULE_0__ =
__webpack_require__(/*! ./add.wasm */ 1);
/* harmony import */ var _factorial_wasm__WEBPACK_IMPORTED_MODULE_1__ =
__webpack_require__(/*! ./factorial.wasm */ 3);
/* harmony import */ var _fibonacci_wasm__WEBPACK_IMPORTED_MODULE_2__ =
__webpack_require__(/*! ./fibonacci.wasm */ 4);
var __webpack_async_dependencies__ =
__webpack_handle_async_dependencies__([_fibonacci_wasm__WEBPACK_IMPORTED_MODULE_2__,
_factorial_wasm__WEBPACK_IMPORTED_MODULE_1__,
_add_wasm__WEBPACK_IMPORTED_MODULE_0__]);
([_fibonacci_wasm__WEBPACK_IMPORTED_MODULE_2__,
_factorial_wasm__WEBPACK_IMPORTED_MODULE_1__,
_add_wasm__WEBPACK_IMPORTED_MODULE_0__] = __webpack_async_dependencies__.then ?
await __webpack_async_dependencies__ : __webpack_async_dependencies__);
```

```
function factorialJavascript(i) {
    if (i < 1) return 1;
    return i * factorialJavascript(i - 1);
}

function fibonacciJavascript(i) {
    if (i < 2) return 1;
    return fibonacciJavascript(i - 1) + fibonacciJavascript(i - 2);
}

});

/***/ }),
/* 3 */
/*!************************!*\
  !*** ./factorial.wasm ***!
  \************************/
/*! namespace exports */
/*! export factorial [provided] [no usage info] [provision prevents renaming (no use
info)] */
/*! other exports [not provided] [no usage info] */
```

```
/*! runtime requirements: module, module.id, __webpack_exports__,
__webpack_require__.v, __webpack_require__.* */
/***/ ((module, exports, __webpack_require__) => {

module.exports = __webpack_require__.v(exports, module.id, "35a58b7c95860d720a3c");

/***/ }),
/* 4 */
/*!************************!*\
  !*** ./fibonacci.wasm ***!
  \************************/
/*! namespace exports */
/*! export fibonacci [provided] [no usage info] [provision prevents renaming (no use
info)] */
/*! other exports [not provided] [no usage info] */
/*! runtime requirements: module, module.id, __webpack_exports__,
__webpack_require__.v, __webpack_require__.* */
/***/ ((module, exports, __webpack_require__) => {

module.exports = __webpack_require__.v(exports, module.id, "5a6637e8d63cdf9c72da");

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

▶ /* webpack runtime code */

```
/******/
/******/        // startup
/******/        // Load entry module and return exports
/******/        // This entry module used 'module' so it can't be inlined
/******/        var __webpack_exports__ = __webpack_require__(0);
/******/
/******/ })()
;
```

Info

Unoptimized

```
asset output.js 12.6 KiB [emitted] (name: main)
asset 5a6637e8d63cdf9c72da.wasm 67 bytes [emitted] [immutable] (auxiliary name: main)
asset 35a58b7c95860d720a3c.wasm 62 bytes [emitted] [immutable] (auxiliary name: main)
asset 0eaeab8b9fa3cef100d1.wasm 41 bytes [emitted] [immutable] (auxiliary name: main)
chunk (runtime: main) output.js (main) 1.27 KiB (javascript) 170 bytes (webassembly)
3.35 KiB (runtime) [entry] [rendered]
  > ./example.js main
  runtime modules 3.35 KiB 6 modules
  dependent modules 552 bytes (javascript) 170 bytes (webassembly) [dependent] 4
modules
```

```
  ./example.js 753 bytes [built] [code generated]
    [no exports]
    [used exports unknown]
    entry ./example.js main
webpack 5.51.1 compiled successfully
```

Production mode

```
asset output.js 2.44 KiB [emitted] [minimized] (name: main)
asset 67aca7a09456080b5120.wasm 67 bytes [emitted] [immutable] (auxiliary name: main)
asset 36825f9224dde8d88de0.wasm 62 bytes [emitted] [immutable] (auxiliary name: main)
asset 10cff76bc58b7aa8f9cb.wasm 41 bytes [emitted] [immutable] (auxiliary name: main)
chunk (runtime: main) output.js (main) 1.27 KiB (javascript) 170 bytes (webassembly)
3.08 KiB (runtime) [entry] [rendered]
  > ./example.js main
  runtime modules 3.08 KiB 5 modules
  dependent modules 552 bytes (javascript) 170 bytes (webassembly) [dependent] 4
modules
  ./example.js 753 bytes [built] [code generated]
    [no exports]
    [no exports used]
    entry ./example.js main
webpack 5.51.1 compiled successfully
```