

# Type Definitions

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# Overview



**Role of type definitions**

**DefinitelyTyped**

**Managing type definitions with tsd**

**Managing type definitions with typings**



# What Are Type Definition Files?

Files with type information for a library

Contain no implementation details

Primarily used as a TypeScript wrapper for JavaScript libraries

Design-time tool for type-checking and editor support

File names end with .d.ts



# Type Definition Sources

DefinitelyTyped

Typings Type Definition  
Manager (multiple sources)

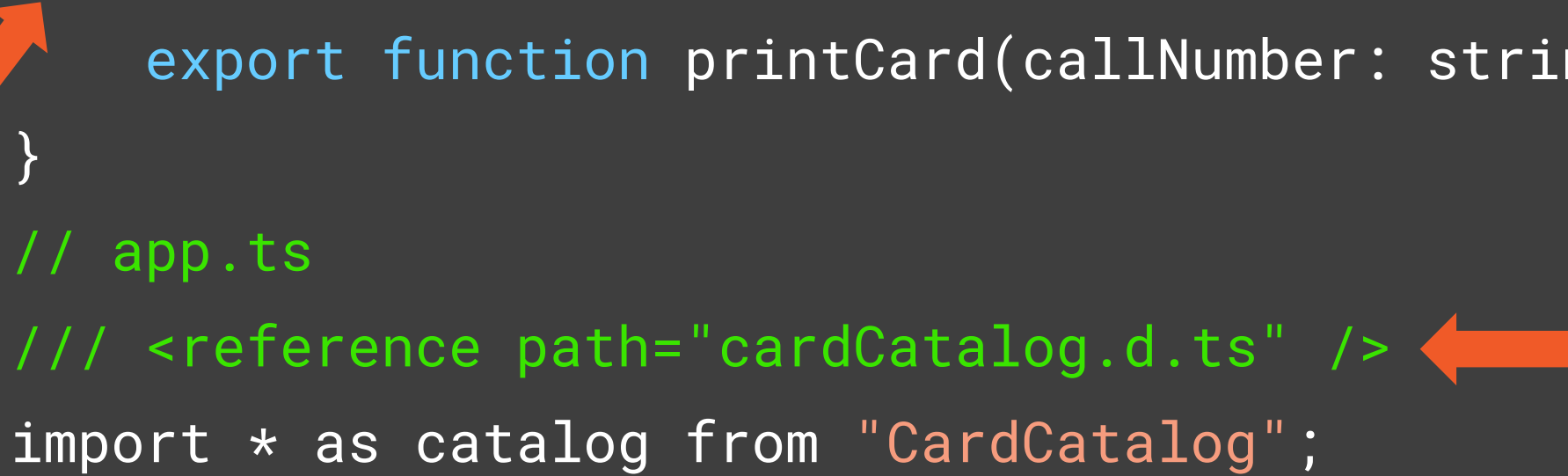
npm packages

Write your own!



```
// cardCatalog.d.ts
declare module "CardCatalog" {
  export function printCard(callNumber: string): void;
}

// app.ts
/// <reference path="cardCatalog.d.ts" />
import * as catalog from "CardCatalog";
```



## Ambient Modules

Created with the “declare” keyword

Don't define an implementation



# DefinitelyTyped

**Huge repository of type definitions**

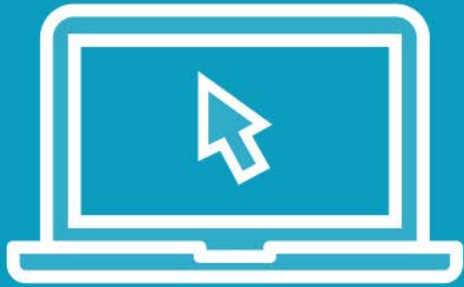
**All definitions in a single Github repo**

**Download several ways**

- Direct download from Github
- Nuget
- tsd
- typings



# Demo



Using definitions from **DefinitelyTyped**



# Managing Type Definitions with “tsd”

**Find and download type definitions**

**Uses DefinitelyTyped exclusively**

**Manages references to installed definitions**

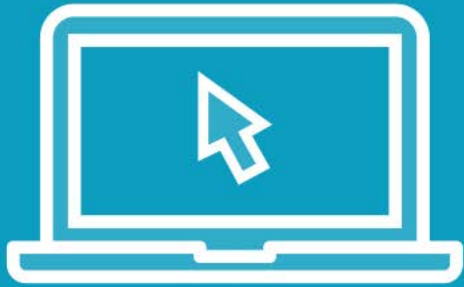
**Stores “triple-slash” references in a single file**

**But...it’s deprecated**





# Demo



## Installing type definitions with tsd



# Managing Type Definitions with “typings”

**Find and download type definitions**

**Uses multiple sources**

**Manages references to installed definitions**

**Stores “triple-slash” references in a single file**

**But...it’s new and not yet widely adopted**



# Demo



## Installing type definitions with typings



# Summary



**Benefits of type definitions**

**DefinitelyTyped**

**Managing type definitions**



**Thanks for watching!**

