

```
tags:  
- javascript
```

TypeScript

Installation

```
npm install -D typescript  
// or  
npm install -g typescript
```

Pour le développement en TypeScript

```
npm install -D @types/node ts-node ts-node-dev  
npm install cross-env
```

Initialisation d'un projet TypeScript

```
npm init -y  
npx tsc --init
```

package.json

```
{  
  ...,  
  "main": "index.ts",  
  "scripts": {  
    "start": "ts-node index.ts",  
    "dev": "cross-env NODE_ENV=development ts-node-dev --exit-child --  
respawn index.ts",  
    "build": "tsc index.ts",  
    "start-js": "node index.js"  
  },  
  ...,  
  "devDependencies": {  
    "@types/node": "^18.7.13",  
    "nodemon": "^2.0.19",  
    "typescript": "^4.8.2"  
  },  
  "dependencies": {  
    "ts-node": "^10.9.1"  
  }  
}
```

tsconfig.json

```

{
  "compilerOptions": {
    "baseUrl": ".",
    "target": "es2016",
    "module": "commonjs",
    "lib": ["esnext"],
    "moduleResolution": "node",
    "esModuleInterop": true,
    "forceConsistentCasingInFileNames": true,
    "strict": true,
    "strictNullChecks": true,
    "resolveJsonModule": true,
    "skipLibCheck": true,
    "emitDecoratorMetadata": true,
    "experimentalDecorators": true,
    "outDir": "./dist",
    "strictPropertyInitialization": false,
    "paths": {
      "~/*": ["/src/*"],
      "~//*": ["/.*"]
    }
  }
}

```

Utilisation

```

// index.ts
interface Props {
  name: string;
  age: number;
  isSingle: boolean;
}

// or
type Props = {
  name: string,
  age: number,
  isSingle: boolean,
}

function classicFunction(props: Props): string {
  const { name, age, isSingle } = props;
  return `Bienvenue, ${name} ! Vous avez ${age} ans et vous êtes ${isSingle
? "célibataire" : "en couple"}`;
}

// or
const arrowFunction = (props: Props): string => {
  const { name, age, isSingle } = props;
  return `Bienvenue, ${name} ! Vous avez ${age} ans et vous êtes ${isSingle
? "célibataire" : "en couple"}`;
}

const user: Props = { name: "Toto", age: 20, isSingle: true };

```

```
console.log(arrowFunction(user));
```