

10 Advanced Typescript Questions

1. What does the 'omit' type do?

Ans:- It's a new type where you can define some properties to be excluded from the original type.

EXAMPLE :

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```
type Person = { name : string ;  
                age : number ;  
                location : string ; };
```

```
type QuantumPerson =  
  Omit < Person, 'location' > ; // same  
                                   as next line  
QuantumPerson = { name : string ;  
                  age : number ; };
```

2. When to use the 'declare' Keyword?

Ans:- When using a Javascript library which doesn't have declarations, inside your Typescript project.

Example :

```
declare const libraryName;
```

3. How to get automatically 'declaration' files ?

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Ans :- Set the declaration compiler option on true in the `tsconfig.json`.

Example :

```
{  
  "compilerOptions": {  
    ...  
    "declaration" : true,  
  }  
}
```

4. How to overload a function ?

Ans :- Use the same function name again above the original function without the brackets `{ }`. Change the number of arguments, the argument types or/and the return type.

Example :-

```
function add (x : string,  
             y : string) : string ;
```

```
function add (x : number, y :  
             number) : number {  
    return x + y ;  
}
```

5. How to easily make all properties of an interface optional ?

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Example :-

```
interface Person {  
    name : string ;  
    age : number ;  
}
```

```
type Partial Person =  
    Partial <Person> ; // Same
```

```
interface PartialPerson {  
    name ? : string ;  
    age ? : string ;  
}
```


6. Where can decorators be applied to ?

Ans: Classes, properties, methods, and method arguments.

Example :

```
@MyClassDecorator  
export class Person {  
  ...  
  @MyPropertyDecorator  
  myProperty : string;  
}
```

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7. What does the 'Record' type do ?

Ans : It allows us to create a typed map.

Example :

```
let Person = Record<string,  
  number> = { }  
Person.age = 25 ;
```

8. How can you access classes outside the module they are defined in?

Answer- Use the **export** keyword in front of the class.

Example :

```
export class Person { }
```

9. When to use the 'unknown' keyword?

Ans :- When you don't want to use the **any** keyword or/and don't know the exact type up front but want to assign it later on.

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Example :

```
let person : unknown = 'John';  
if (typeof person === string) {  
    let name : string = person;  
}
```

10. What is a '.map' file, and why/ how can you use it ?

Ans:- The map file is a source map file that can be used when you want to debug. It can be generated by setting the **sourceMap** compiler option on **true** in the **tsconfig.json**.

Example :-

```
{  
  "compilerOptions": {  
    ...  
    "sourceMap": true,  
  }  
}
```

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