Задача 1

export type User = any;

export const users: any[] = [

{

name: 'Max Mustermann',

age: 25,

occupation: 'Chimney sweep'

},

{

name: 'Kate Müller',

age: 23,

occupation: 'Astronaut'

}

];

export function logPerson(user: any) {

console.log(` - ${user.name}, ${user.age}`);

}

console.log('Users:');

users.forEach(logPerson);

Задача 2

type User = {

id: string;

name: string;

}

type Course = {

id: number;

title: string;

}

type WithRate = {

rate: 1 | 2 | 3 | 4 | 5;

}

type WithStudentRole = {

role: "student"

}

type WithTeacherRole = {

role: "teacher"

}

type WithLevel = {

level: "junior" | "middle" | "senior"

}

/\* --- \*/

type StudentCourse = Course & WithStudentRole & WithRate & WithLevel

type Student = any & { courses: { [id: number]: StudentCourse } }

type Teacher = any

type Director = any;

/\*-- Проверка --\*/

const s1: Student = {

id: "s1",

name: "s1",

courses: {

[1]: {

id: 1,

title: "First",

rate: 5,

role: "student",

level: "middle"

}

},

}

const t1: Teacher = {

id: "t1",

name: "t1",

courses: {

[5]: {

level: "junior",

id: 5,

title: "Fifth",

role: "teacher"

},

[1]: {

...s1.courses[1],

role: "teacher"

}

}

}

const d1: Director = {

id: "d1",

name: "d1",

students: {

["s1"]: s1,

["s2"]: {

id: "s2",

name: "s2"

}

},

teachers: {

["t1"]: {

...t1,

rate: 3,

},

["t2"]: {

id: "t2",

name: "t2",

level: "senior",

rate: 5

}

}

}