TypeScript

Tahaluf Training Center 2021

Day 03

1 **Exercises**

Exercise _1

Create an object which contains information of the users who
 pays for meals or restaurant .

Solution

```
const user: any = {
        firstName: '',
        lname: '',
        orders: [],
        email: '',
        isPremium: false
    };
```

Exercise _2

Based on exercise one create array which contains all the system users .

Solution

```typescript
const systemUsers: any[] = [{
        firstName: 'Ahmad',
        lname: 'mk',
        orders: [],
        email: 't@t.com',
        isPremium: true

    },
    {

        firstName: 'join',
        lname: 'doe',
        orders: [],
        email: 't@t.com',
        isPremium: false }]
```

Exercise _3

Based on Exercise one and two create new array ,
contains Premium users only.

Solution _1

```
const premiumUser: any[] = [];
      for (let index = 0;
    index < systemUsers.length; index++) {
          if (systemUsers[index].isPremium)
              premiumUser.push(systemUsers[index])
      }
    console.log(premiumUser)
```

Solution _2

❖ Using filter method

```
const filteredPremiumsUsers =
systemUsers.filter((user) =>
user.isPremium);
console.log(filteredPremiumsUsers);
```

Exercise _4

Based on Exercise one and two create new array ,
contains all premium and odd indexes .

Solution

```
 const filteredPremiumsUsers2
= systemUsers.filter((user, index) => {
if (user.isPremium && (index + 1 % 2) != 0) {
    return true;
      }
    else
    return false;
      });
    console.log(filteredPremiumsUsers2);
     console.log(systemUsers);
```

Exercise _5

Based on Exercise one and two create new array , contains all first name and last name .

Solution _1

```
const publiData = [];
 for (let index = 0;
 index < systemUsers.length; index++) {
        const fnln = {
             firstName:
systemUsers[index].firstName,
             lastName:
systemUsers[index].lastName
        }
        publiData.push(fnln);
    }
```

Solution _2

Using De-structure of the object

```
 for (let index = 0; index <
systemUsers.length; index++) {
const { firstName: firstName2,
lastName: lastName2 } =
systemUsers[index];
            publiData.push({
                firstName2,
                lastName2
            })

        }
```

Solution _3

Using map method

```
 const publicData =
systemUsers.map((user, index) => {
            const { firstName,
lastName } = user;
            return { firstName,
lastName };
        })
console.log(publicData);
```

Exercise _6

Based on Exercise one and two create new array ,
contains Update all user and set orders to empty [].

Solution

```
const allUsersUpdated =
systemUsers.map((user) => {
        user.order = [];
        return user;
    })
    console.log('Updated ',
allUsersUpdated);
```

Exercise _7

Based on Exercise one and two print all the system users using forEach .

Solution

```
systemUsers.forEach((user) => {
        console.log(user);
    })
```

Exercise _8

Based on Exercise one and two create new array , contains all users who have Premium or user who have orders more than 0.

Solution

```
const userspremiumOrNoOrders =
systemUsers.filter((user) =>
            user.ispremium ||
user.orders.length == 0);
```

Exercise _9

Based on Exercise one and two print something like
contains the user's info
//?? Labels dynamic.

Solution

```
const userInfo: any = {
      firstName: 'john',
       lastName: 'doe',
       age: '20'
      };

Object.keys(userInfo).forEach((key: any) =>
{

console.log(`${key}=${userInfo[key]}`);
```

Exercise _10

Based on Exercise one and two get all user first name , last name only if they are premium user

Solution

```
const PremiumUsers =
systemUsers.filter((user) =>
user.isPremium);
        const flNameUsers =
premiumUser.map((user) => {
            const { firstName,
lastName } = user;
            return { firstName,
lastName };
        })
```

Search about spread with object in Typescript ..

Exercises

Example :

```
const userA = { fname: 'john',
lname: 'don' };
        const departmentInfo = {
name: 'web', section: 1 };
        const fullUser = {
        ...userA,
        ...departmentInfo
    };
    console.log(fullUser);
```