

Angular New Document

1) Convert JSON array of objects to string array

```
jsonObject = [  
    {"name": "Bill Gates"},  
    {"name": "Max Payne"},  
    {"name": "Trump"},  
    {"name": "Obama"}  
];
```

```
arrayList: Array<string> = jsonObject.map(person => person.name);
```

2) Convert string to array of objects

```
{  
    "status": "success",  
    "code": 0,  
    "message": "version list",  
    "payload" :  
    "[{\\"code\\":\\"AB\\",\\"short\\":\\"AB\\",\\"name\\":\\"Alberta\\",\\"country\\":\\"CA\\",  
    },{\\"code\\":\\"BC\\",\\"short\\":\\"BC\\",\\"name\\":\\"British  
Columbia\\",\\"country\\":\\"CA\\"}]"  
}
```

```
this.values = JSON.parse(data.payload);
```

```

var res = {
  "payload" :
  "[{\\"code\\":\\"AB\\",\\"short\\":\\"AB\\",\\"name\\":\\"Alberta\\",\\"country\\":\\"CA\\"},{\\"code\\":\\"BC\\",\\"short\\":\\"BC\\",\\"name\\":\\"British Columbia\\",\\"country\\":\\"CA\\"}]"
};

```

```

var payloadArray = JSON.parse(res.payload);
console.log( payloadArray )
console.log( Array.isArray(payloadArray) ) // true

```

3) Convert object values into array the Angular way

```

formData : {
  _id: "550de8956e2d0948080e220f"
  category: "Tag1"
  isFeatured: "Yes"
  likeCount: 557
  title: "Integrating WordPress with Your Website"
}
arrayFormData = ["550de8956e2d0948080e220f", "Tag1", "Yes", 557,
"Integrating WordPress with Your Website"] //output

```

```

const values = Object.keys(obj).map(it => obj[it])

```

```

var values = Object.keys(obj).map(function(it) {
  return obj[it]
})

```

4)convert an array of strings into an array of objects in Angular 2?

```
types = ['Old', 'New', 'Template'];
```

```
[
  {
    id: 1,
    name: 'Old'
  },
  {
    id: 2,
    name: 'New'
  },
  {
    id: 3,
    name: 'Template'
  }
]
```

```
let newArr = ['Old', 'New', 'Template'].map((x,i) =>({ id: i + 1, name:
x}))
```

```
let objects = types.map((value, index) => {
  return {
    id: index + 1,
    name: value
  };
})
```

5)array of objects duplicate remove

```

const arr=[
  {place: "here", name: "x", other: "other stuff1" },
  {place: "there", name: "x", other: "other stuff2" },
  {place: "here", name: "y", other: "other stuff4" },
  {place: "here", name: "z", other: "other stuff5" }
]

var aa=arr.filter((v,i,a)=>a.findIndex(t=>(t.place === v.place &&
t.name===v.name))===i)

console.log('a',aa);

const a=[...new Map(arr.map(item => [item['place'], item])).values()]

console.log('hi',JSON.stringify(a));

```

6)How to Convert Object to array in Angular 4?

```

const obj = {5.0: 10, 28.0: 14, 3.0: 6};

const mapped = Object.keys(obj).map(key => ({type: key, value:
obj[key]}));

console.log(mapped);

```

7)two array of objects except values filter

```

const arrayOne = [
  { value: "4a55eff3-1e0d-4a81-9105-3ddd7521d642", display: "Jamsheer" },
  { value: "644838b3-604d-4899-8b78-09e4799f586f", display: "Muhammed" },

```

```

    { value: "b6ee537a-375c-45bd-b9d4-4dd84a75041d", display: "Ravi" },
    { value: "e97339e1-939d-47ab-974c-1b68c9cfb536", display: "Ajmal" },
    { value: "a63a6f77-c637-454e-abf2-dfb9b543af6c", display: "Ryan" },
  ];

const arrayTwo = [
  { value: "4a55eff3-1e0d-4a81-9105-3ddd7521d642", display: "Jamsheer"},
  { value: "644838b3-604d-4899-8b78-09e4799f586f", display: "Muhammed"},
  { value: "b6ee537a-375c-45bd-b9d4-4dd84a75041d", display: "Ravi"},
  { value: "e97339e1-939d-47ab-974c-1b68c9cfb536", display: "Ajmal"},
];

const results = arrayOne.filter(({ value: id1 }) => !arrayTwo.some(({
value: id2 }) => id2 === id1));

console.log(results);

```

8)string interpolation with condition

```

{{ value !==1&&2 ? 'Not Yet Paid' : 'paid' }}

{{value == 1 ? 'val1' : (element.source == 2 ? 'val2' : '')}}

```

9)java stack trace issue

```
export NODE_OPTIONS="--max-old-space-size=8192"
```

10)Checkbox

```

public filterData: any = [];
public filterDataId = [];
public selectedAll: any;
public selectAllValues = false;
public productListArray: any;

this.productListArray = [];

```

```

        if (data && data.length > 0) {
            this.productListArray = data.map(list => {
                return { ...list, selected: false };
            });
        }

selectAll() {
    for (let i = 0; i < this.productListArray.length; i++) {
        this.productListArray[i].selected = this.selectedAll;
    }
    this.filterDataList();
}

filterDataList() {
    this.filterData = this.productListArray.filter(data => {
        if (data.selected === true) {
            return data;
        }
    });
    this.filterDataId = this.filterData.map(obj => obj.categoryId);
}

checkIfAllSelected() {
    this.selectedAll = this.productListArray.every(function (item: any) {
        return item.selected === true;
    });
    this.filterDataList();
}

<th scope="col" width="5%">
<div class="form-group">
<div class="custom-control custom-checkbox mr-sm-2">
<input *ngIf="categorySandbox.getCategoriesList$ | async" type="checkbox"
class="custom-control-input" id="checkbox1" (change)="selectAll()"
[(ngModel)]="selectedAll" [ngModelOptions]="{standalone: true}" />
<label style="cursor: pointer;" class="custom-control-label"
for="checkbox1"></label>
</div>
</div>

```

```

</th>

<th scope="row">
<div class="form-group">
<div class="custom-control custom-checkbox mr-sm-2">
<input type="checkbox" class="custom-control-input"
(change)="checkIfAllSelected()" id="{{ data.categoryId }}"
[ngModelOptions]="{ standalone: true }" [(ngModel)]="data.selected" />
<label class="custom-control-label" for="{{ data.categoryId }}"></label>
</div>
</div>
</th>

```

11)ng-select optiongroup

```

<ng-select [items]="account" bindLabel='attributeName'
bindValue="attributeId" groupBy="attribute"
[(ngModel)]="selectedProjects">
<ng-template ng-optgroup-tmp let-item="item">
{{item.attributeGroupName}}
</ng-template>
<ng-template ng-option-tmp let-item="item">
{{item.attributeName}}
</ng-template>
</ng-select>

account= [
{
  "groupId": 9,
  "attributeGroupName": "Electronics",
  "sortOrder": 0,
  "attribute": [
    {
      "createdBy": null,
      "createdDate": "2021-06-05T14:07:14.000Z",
      "modifiedBy": null,
      "modifiedDate": "2021-08-27T10:51:17.000Z",
      "attributeId": 12,

```

```
        "groupId": 9,
        "attributeGroupName": "Electr",
        "attributeName": "Electric Product",
        "sortOrder": 0
    },
    {
        "createdBy": null,
        "createdDate": "2021-08-25T13:49:17.000Z",
        "modifiedBy": null,
        "modifiedDate": "2021-08-25T13:49:17.000Z",
        "attributeId": 16,
        "groupId": 9,
        "attributeName": "fdgfg",
        "sortOrder": 0
    }
]
},
{
    "groupId": 12,
    "attributeGroupName": "dfgfg",
    "sortOrder": 0,
    "attribute": []
},
{
    "groupId": 1,
    "attributeGroupName": "Laptop",
    "sortOrder": 1,
    "attribute": [
        {
            "createdBy": null,
            "createdDate": "2021-03-23T03:44:43.000Z",
            "modifiedBy": null,
            "modifiedDate": "2021-03-23T03:44:43.000Z",
            "attributeId": 1,
            "groupId": 1,
            "attributeName": "Generation",
            "sortOrder": 1
        },
        {
            "createdBy": null,
```



```

        "createdDate": "2021-03-23T03:44:55.000Z",
        "modifiedBy": null,
        "modifiedDate": "2021-03-23T03:44:55.000Z",
        "attributeId": 2,
        "groupId": 1,
        "attributeName": "Operating System",
        "sortOrder": 2
    },
    {
        "createdBy": null,
        "createdDate": "2021-03-29T09:39:56.000Z",
        "modifiedBy": null,
        "modifiedDate": "2021-03-29T09:39:56.000Z",
        "attributeId": 4,
        "groupId": 1,
        "attributeName": "Disk Space",
        "sortOrder": 3
    }
]
}];

```

11)cke config

```

public config:any;
private config={
    toolbar: [
        [
            'Bold',
            'Italic',
            'BulletedList',
            'Styles'
        ],
        ['Table'],
        ['Image']
    ]
};

```

(or)

```

private hyperlinkconfig = {

```

```

toolbar: [
  [
    'Bold',
    'Italic',
    'BulletedList',
    'Styles'
  ],
  ['Table'],
  ['Image'],
  ['Format'],
  { name: 'links', items: [ 'Link', 'Unlink' ] },
],
'format_tags': "p;h1;h2;h3;h4;h5"
};

```

```

<ckeditor [config]="config" formControlName="bannerContent"
[ngClass]="{'Validationcolor':bannerForm.get('bannerContent').hasError('required') && bannerForm.get('bannerContent').touched&&submitted==true}">
</ckeditor>

```

12)checkbox with search

```

Form: FormGroup;
labels = [
  {id: 1, name: "Test", checked: false},
  {id: 2, name: "Testing", checked: false}
];
labels_display = [];
selectedArray;
dataCopy;

constructor(private _formBuilder: FormBuilder) {

}

ngOnInit() {
  this.Form = this._formBuilder.group({
    selected: this._formBuilder.array([])
  });
}

```

```

    this.labels_display = this.labels.map(x => Object.assign({}, x));
  }

  onSelect(data: number, isChecked: boolean) {
    this.selectedArray = <FormArray>this.Form.controls.selected;

    if(isChecked) {
      this.selectedArray.push(new FormControl(data));
    } else {
      let index = this.selectedArray.controls.findIndex(x => x.value ==
data)
      this.selectedArray.removeAt(index);
    }

    // keep sync between labels and labels_display
    const item = this.labels.find(item => item.id === data);
    item.checked = isChecked;
  }

  search(searchterm): void {
    this.labels_display = this.labels.filter(function(tag) {
      return tag.name.toLowerCase().indexOf(searchterm) >= 0;
    });
  }

  //html

  <input type="text" placeholder="Enter Category" [(ngModel)] =
"searchTerm" (ngModelChange) = "search(searchTerm)">
    <div *ngFor="let data of labels_display">
      <input type="checkbox" (change)="onSelect(data.id,
$event.target.checked)" [checked]="data.checked">
        {{data.name}}
    </div>

```

reference:<https://stackblitz.com/edit/angular-rexviu?file=app%2Fapp.component.html>

13)Ng class

```
<ul *ngFor="let person of people">
  <li [ngClass]="{
    'text-success':person.country === 'UK',
    'text-primary':person.country === 'USA',
    'text-danger':person.country === 'HK'
  }">
    {{ person.name }} ({{ person.country }})
  </li>
</ul>
```

```
getColor(country) {
  switch (country) {
    case "UK":
      return "green";
    case "USA":
      return "blue";
    case "HK":
      return "red";
  }
}
```

```
people: any[] = [
  {
    name: "Douglas Pace",
    country: "UK"
  },
  {
    name: "Mcleod Mueller",
    country: "USA"
  },
  {
    name: "Day Meyers",
```

```

        country: "HK"
    },
    {
        name: "Aguirre  Ellis",
        country: "UK"
    },
    {
        name: "Cook  Tyson",
        country: "USA"
    }
];

```

13.1)ngclass with ternary

```
<div [ngClass]="varA === varB ? 'css-class-1' : 'css-class-2'">
```

14)ng style

```

<ul *ngFor="let person of people">
<li [class.text-success]="person.country === 'UK'"
    [class.text-primary]="person.country === 'USA'"
    [class.text-danger]="person.country === 'HK'">
    {{ person.name }} ({{ person.country }})
</li>
</ul>

```

```
[ngStyle]="{'width':dependent.length>0 ? 'calc(100% - 168px)':'100%' }"
```

14.1)ngstyle colour

```
<div [ngStyle]="{'background-color':'green'}"></div>
```

14.2)ngstyle ternary

```

<div [ngStyle]="{'background-color':person.country === 'UK' ? 'green' :
'red' }"></div>

```

15) ternary condition

```
<span> {{key === 'walking' ?  
'steps':key==='walk'? 'new':key==='wa'? 'step3':''}} </span>  
  
<span> {{selectedSport.key === 'walking' ? 'steps' : 'km'}} </span>  
  
*ngIf="(sandbox.totalSalesReportLoaded$ | async) &&  
(sandbox.totalSalesReport$ | async).length > 0"  
  
this.firstName = this.filterForm.value.firstName ?  
this.filterForm.value.firstName : '';  
  
var icon = (area == 0) ? icon0 : (area == 1) ? icon1 : icon2;  
  
this.year = credits < 30 ? "freshman" : credits <= 59 ? "sophomore" :  
credits <= 89 ? "junior" : "senior";
```

16) form array

```
<hello name="{{ name }}"></hello>  
<p>  
Start editing to see some magic happen :)  
</p>  
<div [formGroup]="orderForm">  
<div formArrayName="items"  
*ngFor="let item of orderForm.get('items').controls; let i = index;">  
<div [formGroupName]="i">  
<input formControlName="name" placeholder="Item name">  
<input formControlName="description" placeholder="Item description">  
<input formControlName="price" placeholder="Item price">  
</div>  
  
Chosen name: {{ orderForm.controls.items.controls[i].controls.name.value  
}}  
</div>  
</div>  
<button (click)="addItem()">Add</button>  
<button (click)="submit()">submit</button>
```

```
orderForm: FormGroup;  
items: FormArray;  
  
constructor(private formBuilder: FormBuilder) {}
```

```
ngOnInit() {  
  this.orderForm = new FormGroup({  
    items: new FormArray([])  
  });  
}
```

```
createItem(): FormGroup {  
  return this.formBuilder.group({  
    name: '',  
    description: '',  
    price: ''  
  });  
}
```

```
addItem(): void {  
  this.items = this.orderForm.get('items') as FormArray;  
  this.items.push(this.createItem());  
}  
  
submit() {  
  console.log(this.orderForm.value.items[0])  
}
```

reference:<https://stackblitz.com/edit/form-array-angular?file=src%2Fapp%2Fapp.component.ts>

reference:<https://www.digitalocean.com/community/tutorials/angular-reactive-forms-formarray-dynamic-fields>

17) show password hide password

```

<div class="input-btn">
    <input #x type="password" required [ngClass]="{
'is-invalid': submitted && f.oldPSW.errors }" FormControlName='oldPSW'>
    <button
(click)="x.type=x.type=='password'? 'text': 'password'">
        
        
    </button>
    <div class="text-danger invalid-data"
*ngIf="submitted &&
this.changePassword.controls['oldPSW'].hasError('required')">
        Current Password is required
    </div>
</div>

```

18) id value binding

```

<input type="text" class="form-control" #myInput
(keyup)="OnInput(myInput.value)">

<br>
<br>
<br>

<input type="text" class="form-control" #myInput1
(keyup)="OnInput(myInput.value)" >
<br>
<br>

{{myInput.value | json}}
<br>
{{myInput.value.length | json}}

```



```
<p *ngIf="(myInput1.value.length > myInput.value.length)">errorrrrr</p>
```

```
<br>
```

```
<br>
```

```
<br>
```

```
{{myInput1.value.length | json}}
```

```
<br>
```

```
{{myInput1.value | json}}
```

18) ngif hide or show

```
<hello name="{{ name }}"></hello>
```

```
<button (click)="showMyContainer=!showMyContainer">{{showMyContainer ?  
'hide' : 'show'}}</button>
```

```
<div *ngIf="showMyContainer">
```

```
  your code
```

```
</div>
```

```
  showMyContainer: boolean = false;
```

19) Only Numbers

```
<input type="text" (keypress)="keyPressNumbers($event)" />
```

```
keyPressNumbers(event) {  
  var charCode = (event.which) ? event.which : event.keyCode;  
  // Only Numbers 0-9  
  if ((charCode < 48 || charCode > 57)) {  
    event.preventDefault();  
    return false;  
  } else {  
    return true;  
  }  
}
```

(or)

```
<input type="text" oninput="this.value = this.value.replace(/^[^0-9]/g,
').replace(/(\.\.?)\.\.?/g, '$1');" />
```

(or)

```
<input type="text" oninput="this.value =
this.value.replace(/^[^0-9]/g, '');" />
```

20) Only Numbers with Decimals

```
keyPressNumbersDecimal(event) {
  var charCode = (event.which) ? event.which : event.keyCode;
  if (charCode != 46 && charCode > 31
    && (charCode < 48 || charCode > 57)) {
    event.preventDefault();
    return false;
  }
  return true;
}
```

```
<input type="text" (keypress)="keyPressNumbersDecimal($event)" />
```

21) Only AlphaNumeric [AB99]

```
<input type="text" (keypress)="keyPressAlphaNumeric($event)" />
```

// Only AlphaNumeric

```
keyPressAlphaNumeric(event) {

  var inp = String.fromCharCode(event.keyCode);

  if (/^[a-zA-Z0-9]/.test(inp)) {
    return true;
  } else {
    event.preventDefault();
    return false;
  }
}
```

```
}
```

22) Allow Alphanumeric with Some Characters [19.a_a]

```
<input type="text" (keypress)="keyPressAlphaNumericWithCharacters($event)"
/>
```

```
// Only Alphanumeric with Some Characters [-_ ]
keyPressAlphaNumericWithCharacters(event) {

    var inp = String.fromCharCode(event.keyCode);
    // Allow numbers, alphabets, space, underscore
    if (/[a-zA-Z0-9-_ ]/.test(inp)) {
        return true;
    } else {
        event.preventDefault();
        return false;
    }
}
```

23) single input form

```
submitted = false;
name = new FormControl('',
[Validators.required, Validators.minLength(6)]);

submit() {
    // this.name.setValue('Nancy');
    this.submitted = true;
    if(this.name.invalid) {
        return;
    }
    console.log(this.name);
}
```

```
<label>First Name</label><br>
```

```

<input type="text" [formControl]="name" [ngClass]="{ 'is-invalid':
submitted && name.errors }" />
<div *ngIf="submitted && name.errors" class="invalid-feedback">
  <div *ngIf="name.errors.required">First Name is required</div>
  <div *ngIf="name.errors.minlength">name must be at least 6
characters</div>
</div>

<button (click)="submit()">submit</button>

```

24) disable submit

<https://stackblitz.com/edit/angular-7-login-form-reactive-form-q3nffq?file=src%2Fapp%2Fapp.component.html>

```

<h4 class="text-center">Login Page Example - Reactive Form - Angular</h4>
<div class="container">
<form (keydown.enter)="$event.preventDefault()" [formGroup]="loginForm"
(ngSubmit)="onSubmit()" novalidate>
  <div class="form-group">
    <label for="exampleInputEmail1">Email address</label>
    <input type="email" class="form-control" formControlName="email"
placeholder="Enter email">
    <small class="form-text text-muted"
*ngIf="loginForm.controls.email.touched &&
loginForm.controls.email.errors?.required">
      Please enter email address.!!
    </small>
    <small class="form-text text-muted"
*ngIf="loginForm.controls.email.touched &&
loginForm.controls.email.errors?.email">
      Email address not well formed.!!
    </small>
  </div>
  <div class="form-group">
    <label for="exampleInputPassword1">Password</label>

```

```

        <input type="password" class="form-control" formControlName="password"
placeholder="Password">
    </div>
    <button *ngIf="!dis" type="submit" class="btn
btn-primary">Submit</button>
</form>
<button class="btn btn-primary" *ngIf="dis"> disabled Submit</button>
</div>

```

```

public a:any;
public dis =false;
ngOnInit() {

    this.a=localStorage.getItem('datas');
    if (this.a!= null && this.a.length>0)
    {
        this.dis=true;
        console.log('disabled')
    }
}
loginForm: FormGroup;
constructor() {
    this.loginForm = new FormGroup({
        email: new FormControl('', [Validators.required, Validators.email]),
        password: new FormControl('', [Validators.required])
    });
}
onSubmit() {
    if(this.loginForm.valid) {
        console.log(this.loginForm.value);
        localStorage.setItem("datas", JSON.stringify(this.loginForm.value));
        window.location.reload();
    }
}
_v() {
    return this.loginForm.value;
}

```

25) Prevent submit when user press enter keyy

```
<form (keydown.enter)="$event.preventDefault()"></form>
```

26) Cannot read property 'length' of null (javascript)

```
if (capital != null && capital.length < 1)
```

27) normal select

```
<select>
  <option value="" selected disabled hidden>Choose here</option>
  <option value="1">One</option>
  <option value="2">Two</option>
</select>
```

28) array duplicate remove

```
const numbers = [2,3,4,4,2,3,3,4,4,5,5,6,6,7,5,32,3,4,5]
```

```
console.log([...new Set(numbers)])
```

29) checkbox single select

```
<div class="col-md-12 align-items-center">
  <ul class="list-group">
    <li class="list-group-item" *ngFor="let item of checklist">
      <input type="checkbox" value="{{item.id}}"
[checked]="item.isSelected"
(change)="isAllSelected(item)"/>
      {{item.value}}</li>
    </ul>
</div>
```

```
public checklist: any[];
constructor() {
  this.checklist = [
    { id: 1, value: "value1", isSelected: false },
    { id: 2, value: "value2", isSelected: false }
  ];
}
```

```
isAllSelected(item) {
  this.checklist.forEach(val => {
```

```

        if (val.id == item.id) val.isSelected = !val.isSelected;
        else {
            val.isSelected = false;
        }
    });
}

```

ref:<https://stackblitz.com/edit/angular-ivy-tt9yca?file=src%2Fapp%2Fapp.component.ts>

30)cursor hide

```
<input type="text" (keyup)="new($event)" [ngClass]='{"news": a == 3}'>
```

```

    public a:any;
    new(event) {
        console.log('event',event.target.value)
        this.a=event.target.value.length
    }

```

```

input {
    color: black;
    text-shadow: 0px 0px 0px black;
}

```

```

.news{
color:transparent;
}

```

31)dynamic field add

reference:<https://stackblitz.com/edit/form-array-patch-qslxxb?file=app%2Fapp.component.ts>

32)decimal numbers after point with two values

```
| number : '1.2-2'
```

```
createdDate: "2021-10-21T07:45:38.000Z" -- 21/10/2021 1:15 PM
```

```
{{item?.createdDate | date : "dd/MM/yyyy h:mm a"}}
```

```
{{item?.basePrice | currency:currencyCode:''}}
```

33) filter with input box

```

                heroes1 = [
    { id: 11, name: 'Mr. Nice', country: 'India' },
    { id: 12, name: 'Narco', country: 'USA' },
    { id: 13, name: 'Bombasto', country: 'UK' },
    { id: 14, name: 'Celeritas', country: 'Canada' },
    { id: 15, name: 'Magneta', country: 'Russia' },
    { id: 16, name: 'RubberMan', country: 'China' },
    { id: 17, name: 'Dynamia', country: 'Germany' },
    { id: 18, name: 'Dr IQ', country: 'Hong Kong' },
    { id: 19, name: 'Magma', country: 'South Africa' },
    { id: 20, name: 'Tornado', country: 'Sri Lanka' },
  ];
  new(event) {
    console.log('value', event);
    this.heroes = this.heroes1.filter((val) => {
      return
val.name.toLocaleLowerCase().match(event.toLocaleLowerCase());
    });

    <div class="container">
    <div class="row">
      <div class="search-hero">
        <input class="form-control" (keyup)="new($event.target.value)"
type="text" name="search" [(ngModel)]="searchText" autocomplete="off"
placeholder="#61442; Start searching for a hero by id or name or
country">
      </div>
      <table class="table table-striped">
        <thead>
          <tr>
```



```

        <th>Id</th>
        <th>Hero Name</th>
        <th>Country</th>
    </tr>
</thead>
<tbody>
<tr *ngFor="let hero of heroes">
    <td>{{hero.id}}</td>
    <td>{{hero.name}}</td>
    <td>{{hero.country}}</td>
</tr>
</tbody>
</table>
</div>
</div>

```

34) search with checkbox

```

public filterData: any = [];
public filterDataId = [];
public selectedAll: any;
public selectAllValues = false;
public productListArray: any;
backup: any;

ngOnInit() {
    this.productListArray = [
        { id: 1, name: 'Test', checked: false },
        { id: 2, name: 'Testing', checked: false },
        { id: 3, name: 'abc', checked: false },
        { id: 4, name: 'def', checked: false },
    ];
    this.backup = this.productListArray;
}

selectAll() {
    for (let i = 0; i < this.productListArray.length; i++) {
        this.productListArray[i].selected = this.selectedAll;
    }
    this.filterDataList();
}

```

```

}

filterDataList() {
  this.filterData = this.backup.filter((data) => {
    if (data.selected === true) {
      return data;
    }
  });
  this.filterDataId = this.filterData.map((obj) => obj.id);
}

checkIfAllSelected() {
  this.selectedAll = this.backup.every(function (item: any) {
    return item.selected === true;
  });
  this.selectedAll = this.productListArray.every(function (item:
any) {
    return item.selected === true;
  });
  if (this.productListArray.length === 0) {
    this.selectedAll = false;
  }
  this.filterDataList();
}

new(event) {
  if (event.length === 0) {
    this.productListArray = this.backup;
  }
  this.productListArray = this.backup.filter((val) => {
    return
val.name.toLocaleLowerCase().match(event.toLocaleLowerCase());
  });
  this.checkIfAllSelected();
}

<hello name="{{ name }}"></hello>
<p>
  Start editing to see some magic happen :)

```

```

</p>
<input type="text" (keyup)="new($event.target.value)">
<div class="form-group">
<div class="custom-control custom-checkbox mr-sm-2">
<input type="checkbox" class="custom-control-input" id="checkbox1"
(change)="selectAll()" [(ngModel)]="selectedAll"
[ngModelOptions]="{standalone: true}" />
<label style="cursor: pointer;" class="custom-control-label"
for="checkbox1">Select All</label>
</div>
</div>

```

```

<div class="form-group">
<div class="custom-control custom-checkbox mr-sm-2" *ngFor="let data of
productListArray">
<input type="checkbox" class="custom-control-input"
(change)="checkIfAllSelected()" id="{{ data.id }}" [ngModelOptions]="{
standalone: true }" [(ngModel)]="data.selected" />
<label class="custom-control-label" for="{{ data.id
}}">{{data.name}}</label>
</div>
</div>

```

```

<span>{{filterDataId | json}}</span>

```

ref:<https://stackblitz.com/edit/angular-jfx8md?file=src%2Fapp%2Fapp.component.ts>

-----delete-----

```

delete(val) {
this.backup.forEach(function (value) {
  if(value==val) {
    value.selected=false;
  }
});

```

```
this.checkIfAllSelected();  
}
```

```
<div *ngFor="let val of filterData">  
<span (click)="delete(val)">{{val | json}}</span>  
</div>
```

ref:<https://stackblitz.com/edit/angular-93ehnh?file=src%2Fapp%2Fapp.component.ts>

35) array of object to array

```
let a:any=[];  
var array = [  
  { name:"string 1", value:"1", other: "that" },  
  { name:"string 2", value:"5", other: "that" }  
];  
a = array.map(b => b.value);  
console.log('a',a)
```

36) object to array of object

```
var a={john:"john@gmail.com",venket:"venkat@gmail.com"}  
var obb=Object.entries(a).map(([name,email])=>  
  ({name,email}))  
)  
console.log('obb',obb)  
---output---  
[  
  {  
    "name": "john",  
    "email": "john@gmail.com"  
  }, {  
    "name": "venket",  
    "email": "venkat@gmail.com"  
  }  
]
```

37) checkbox only 3 selected

```
list: any[];
filterdataid: any = [];
filterdatalist: any = [];

this.list = [
  {
    id: 1,
    title: 'Администратор',
    checked: false,
  },
  {
    id: 2,
    title: 'Пользователь',
    checked: false,
  },
  {
    id: 3,
    title: 'Директор',
    checked: false,
  },
  {
    id: 4,
    title: 'Начальник',
    checked: false,
  },
  {
    id: 5,
    title: 'Пользователь',
    checked: false,
  },
  {
    id: 6,
    title: 'Директор',
    checked: false,
  },
  {
    id: 7,
    title: 'Начальник',
    checked: false,
  },
]
```

```

    },
  ];

result(event, item) {
  if (event.target.checked == true) {
    if (this.filterdatalist.length > 2) {
      this.list.forEach((data) => {
        if (data.id == this.filterdatalist[0].id) {
          console.log('ssssssss')
          data.checked = false;
        }
      });
      this.filterdatalist.push(item)
      this.filterdatalist = this.filterdatalist.filter((item) =>
{
        return item.checked === true;
      });
    } else {
      this.filterdatalist.push(item)
      this.filterdatalist = this.filterdatalist.filter((item) => {
        if (item.checked === true) {
          return item;
        }
      });
      (or)

      this.filterdatalist=this.list.filter(item=>(item.checked))
    }
    this.ids();
  } else if (event.target.checked == false) {
    this.filterdatalist.forEach((data, index) => {
      if (data.id == item.id) {
        this.filterdatalist.splice(index, 1);
      }
    });
    this.ids();
  }
  console.log('filterdatalist', this.filterdatalist);
}

```

```

ids(){
  this.filterdataid=this.filterdatalist.map(item=>item.id);
}

<!-------Maximum 3 should be selected----->

result(event, item) {
  if (event.target.checked == true) {
    if (this.filterdatalist.length > 2) {
      this.list.forEach((data) => {
        if (data.id == item.id) {
          item.checked = false;
        }
      });
      return (event.target.checked = false);
    } else {
      this.filterdatalist = this.list.filter((item) => {
        if (item.checked === true) {
          return item;
        }
      });

      (or)

      this.filterdatalist=this.list.filter(item=>(item.checked))

    }
    this.ids();
  } else if (event.target.checked == false) {
    this.filterdatalist.forEach((data, index) => {
      if (data.id == item.id) {
        this.filterdatalist.splice(index, 1);
      }
    });
    this.ids();
  }
  console.log('filterdatalist', this.filterdatalist);
}

ids(){
  this.filterdataid=this.filterdatalist.map(item=>item.id);
}

```

```
}
```

```
<h2>Checkbox list example</h2>
```

```
<ul>
```

```
  <li *ngFor="let item of list; let i=index">
```

```
    <input type="checkbox" [(ngModel)]="item.checked"
```

```
(change)="result($event,item,i)">{{item.title}}
```

```
  </li>
```

```
</ul>
```

```
<pre>{{this.filterdatalist | json}}</pre>
```

```
<pre>{{this.filterdataid | json}}</pre>
```

38) download file

link---><https://stackblitz.com/edit/angular-blob-file-download>

39) download image

```
var link = document.createElement("a");
```

```
document.body.appendChild(link); // for Firefox
```

```
link.setAttribute("href", this.base64Image);
```

```
link.setAttribute("download", "mrHankey.jpg");
```

```
link.click();
```

40) ngb date picker on model(issue)

```
::ng-deep .cdk-overlay-container {
```

```
  z-index: 2000;
```

```
}
```

42) pdf on model

link--><https://stackblitz.com/edit/angular-modal-pdf?file=src%2Fapp%2Fapp.component.html>

41) form array with ngmodel

```
public data: Structure[];

this.data = [
  {
    name: 'Sachin',
    age: 27
  }, {
    name: "Gopal",
    age: 27
  }, {
    name: "Pankaj",
    age: 24,
    someString: 'React',
    someNumber: 99
  }
]

log() {
  console.log(this.data);
}

class Structure {
  name: string;
  age: number;
  someString?: string;
  someNumber?: number;
}

<div>
  <div *ngFor='let item of data'>
```

```

<div>{{item.name}}</div>
<div>{{item.age}}</div>
<div>
  <input type='text' [(ngModel)]='item.someString' />
</div>
<div>
  <input type='number' [(ngModel)]='item.someNumber' />
</div>
</div>
</div>

```

```

<input type='button' (click)='log()' value='Log Changes' />

```

refer:<https://stackblitz.com/edit/angular-ngfor-ngmodel-table?file=src%2Fapp%2Fapp.component.ts>

41) formarray with ngmodel value

```

public data:any;
public data1:any=[];

this.data = [
  {
    name:'Sachin',
    age:27,
    version:[
      {
        name:"abc",
        value:"2"
      },
      {
        name:"def",
        value:"3"
      }
    ]
  },
  {
    name: "Gopal",
    age: 27,
    version:[
      {

```

```

        name:"abwec",
        value:"256"
    },
    {
        name:"deefffef",
        value:"353"
    }
]
},{
    name: "Pankaj",
    age: 24,
    someString: 'React',
    someNumber: 99,
    version:[
        {
            name:"abeec",
            value:"24"
        },
        {
            name:"detttttf",
            value:"53"
        }
    ]
}
}

```

```

log(){
    console.log(this.data);
    console.log('sd',this.data1)
}

```

```

<div>
<div *ngFor='let item of data;index as i'>
    <div>{{item.name}}</div>
    <div>{{item.age}}</div>
    <div>
        <input type='text' [(ngModel)]='item.someString' />
    
```

```

    </div>
  <div>
    <input type='number' [(ngModel)]='item.someNumber' />
  </div>
  <div>
    <select [(ngModel)]="data1[i]">
      <option *ngFor="let data of item.version" value="{{data.value}}"
>{{data.name}}</option>
    </select>
  </div>
</div>
</div>

```

```

<input type='button' (click)='log()' value='Log Changes' />

```

42) paste on input box

```

{
  eventtt(e) {
    console.log('e',e)
    let values = (e.target as HTMLInputElement).value;
    console.log('values',values)
  }

  <input type="text" name="abc" (input)="eventtt($event)">

}

```

43) Image type and size validation

html

```

<div *ngIf="imageSizeError" class="upload-error validation-error">{{
'catalog.Error.Imageshouldbelessthan2MB' | translate }}</div>
<div *ngIf="imageTypeError" class="upload-error validation-error">
{{ 'catalog.Error.Pleaseuploadimageonly(.png,.jpg,.jpeg)' | translate }}
</div>

```

ts

```
import * as _ from 'lodash';
```

```
public imageTypeError = false;
```

```
public imageSizeError = false;
```

```
const allowed_types = ['image/png', 'image/jpeg', 'image/jpg'];
```

```
if (!_.includes(allowed_types, inputValue.files[0].type)) {  
  this.imageTypeError = true;  
  this.ImageUrl = '';  
  // this.postImageUrl = './assets/upload-banner/upload.png';  
  this.filePath.nativeElement.value = '';  
  return;  
}
```

```
this.imageTypeError = false;
```

```
const size = Math.round(inputValue.files[0].size / 1024);
```

```
if (size > 2048) {  
  this.imageSizeError = true;  
  this.imageUrls = '';  
  
  this.filePath.nativeElement.value = '';  
  return;  
}
```

```
myReader.readAsDataURL(file);
```

```
this.imageSizeError = false;
```

44) Object length

```
Object.keys(val).length
```

45)Array last index value

```
const arr = [1, 3, 6, 2];  
console.log(...arr.slice(-1)); // 2
```

```
let items= [{  
  "name": "john",  
  "email": "john@gmail.com"  
}, {  
  "name": "venket",  
  "email": "venkat@gmail.com"  
}  
]  
let c=items[items.length-1]  
console.log(c)
```

46)price total calculation

```
fruits = [  
  { description: 'orange', Amount: 50},  
  { description: 'orange', Amount: 50},  
  { description: 'apple', Amount: 75},  
  { description: 'kiwi', Amount: 35},  
  { description: 'watermelon', Amount: 25},];  
const sumall = fruits.map(item => item.amount).reduce((prev, curr) => prev  
+ curr, 0);  
console.log(sumall);
```

47)event emitter

<https://stackblitz.com/edit/angular-subscribe-to-event-emitter?file=src%2Fapp%2Fapp.component.ts>

48)array to array of objects

```
var data = [  
  ["fruits","frozen","fresh","rotten"],  
  ["apples",884,494,494],  
  ["oranges",4848,494,4949],
```

```
["kiwi",848,33,33]  
]
```

```
function convertToArrayOfObjects(data) {  
    var keys = data.shift(),  
        i = 0, k = 0,  
        obj = null,  
        output = [];  
  
    for (i = 0; i < data.length; i++) {  
        obj = {};  
  
        for (k = 0; k < keys.length; k++) {  
            obj[keys[k]] = data[i][k];  
        }  
  
        output.push(obj);  
    }  
  
    return output;  
}
```

output

```
[  
  { fruits: 'apples', fresh: 494, frozen: 884, rotten: 494 },  
  { fruits: 'oranges', fresh: 494, frozen: 4848, rotten: 4949 },  
  { fruits: 'kiwi', fresh: 33, frozen: 848, rotten: 33 }  
]
```

(OR)

```
const data = [  
  ["fruits","frozen","fresh","rotten"],  
  ["apples",884,494,494],  
  ["oranges",4848,494,4949],  
  ["kiwi",848,33,33]  
]
```

```

const titles = data[0]
const obj = data.slice(1).map(([fruits,frozen,fresh,rotten]) => ({
fruits,frozen,fresh,rotten } ) )
console.log(obj)

```

```

[
  {
    "fruits": "apples",
    "frozen": 884,
    "fresh": 494,
    "rotten": 494
  },
  {
    "fruits": "oranges",
    "frozen": 4848,
    "fresh": 494,
    "rotten": 4949
  },
  {
    "fruits": "kiwi",
    "frozen": 848,
    "fresh": 33,
    "rotten": 33
  }
]

```

49) Find Ids from multi dimensional object array

```

var products = [
  { id: 1, groups: [ { id: 1.1, selected: true }, { id: 1.2, selected:
false } ] },
  { id: 2, groups: [ { id: 2.1, selected: false }, { id: 2.2,
selected: true } ] },{
  id:3
}
];

var desiredResult = products.map(product => {
  return product?.groups?.filter(group => group.selected).map(item
=> item.id).toString();

```



```
});  
    desiredResult=desiredResult.filter(val=>val!=undefined) //  
optional if no groups in array of object
```

```
    console.log(desiredResult);
```

```
    ["1.1", "2.2"]
```

```
    (or)
```

```
    const products = [  
      { id: 1, groups: [{ id: 1.1, selected: true }, { id: 1.2, selected:  
false }] },  
      { id: 2, groups: [{ id: 2.1, selected: false }, { id: 2.2, selected:  
true }] }];
```

```
    const allIds = [].concat(...products.map(p => p.groups)).filter(g =>  
g.selected).map(x => x.id)
```

```
    console.log(allIds)
```

<https://stackoverflow.com/questions/50758324/find-ids-from-multi-dimensional-object-array>

50)tooltip background colour change

html

```
tooltipClass="my-custom-class"
```

ts

```
    .my-custom-class .tooltip-inner {  
      background-color: #3259b6 !important;  
    }
```

51)two array of object filter method

```
const arrayOne = [
  { value: "4a55eff3-1e0d-4a81-9105-3ddd7521d642", display: "Jamsheer" },
  { value: "644838b3-604d-4899-8b78-09e4799f586f", display: "Muhammed" },
  { value: "b6ee537a-375c-45bd-b9d4-4dd84a75041d", display: "Ravi" },
  { value: "e97339e1-939d-47ab-974c-1b68c9cfb536", display: "Ajmal" },
  { value: "a63a6f77-c637-454e-abf2-dfb9b543af6c", display: "Ryan" },
];
```

```
const arrayTwo = [
  { value: "4a55eff3-1e0d-4a81-9105-3ddd7521d642", display: "Jamsheer"},
  { value: "644838b3-604d-4899-8b78-09e4799f586f", display: "Muhammed"},
  { value: "b6ee537a-375c-45bd-b9d4-4dd84a75041d", display: "Ravi"},
  { value: "e97339e1-939d-47ab-974c-1b68c9cfb536", display: "Ajmal"},
];
```

```
const results = arrayOne.filter(({ value: id1 }) => !arrayTwo.some(({
value: id2 }) => id2 === id1));
```

```
console.log(results);
```

[ref:https://stackoverflow.com/questions/21987909/how-to-get-the-difference-between-two-arrays-of-objects-in-javascript](https://stackoverflow.com/questions/21987909/how-to-get-the-difference-between-two-arrays-of-objects-in-javascript)

52) Pagination

ts

```
public limit = 10;
public offset: any = 0;
public currentPage: any = 1;
public queryData: any = {};
```

```
constructor(
  public router: Router,
  public route: ActivatedRoute
) {

}
```

```
ngOnInit(): void {
  this.offset = this.route.snapshot.queryParamMap.get('offset') || 0;
  this.currentPage = this.route.snapshot.queryParamMap.get('index');
```

```

    }

    getOrderList() {
      const params: any = {};
      params.limit = this.limit;
      params.offset = this.offset;

      this.queryData.offset = this.offset || 0;
      this.queryData.index = this.currentPage || 1;
      this.router.navigate(
        [],
        {
          relativeTo: this.route,
          queryParams: this.queryData,
          queryParamsHandling: 'merge', // remove to replace all query
params by provided
        });
      this.selectedAll=false;
      this.filterData = [];
      this.filterDataId=[];
    }

    getOrderListcount(){
      const params: any = {};
      params.limit = this.limit;
      params.offset = this.offset;
    }

    // page change event
    pageChange(event) {
      this.currentPage = event;
      this.offset = this.limit * (event - 1);
      this.getOrderList();
    }
  }
}

```

html

```

<div class="pager" style="right: 0;bottom:30px">

```

```
    <app-pager (pageChange)="pageChange($event)" [pageSize]="limit"
[currentPage]="currentPage" [counts]="(orderSandbox.getAllOrderListcount$
| async)"></app-pager>
```

```
</div>
```

```
53) show hide password
```

```
html
```

```
<input toggle placeholder="Password" type="password" id='test'>
```

```
module
```

```
import { ToggleDirective } from './toggle.directive';
```

```
ToggleDirective
```

```
import { Directive, ElementRef } from '@angular/core';
```

```
@Directive({
```

```
  selector: '[toggle]',
```

```
})
```

```
export class ToggleDirective {
```

```
  private _shown = false;
```

```
  constructor(private el: ElementRef) {
```

```
    const parent = this.el.nativeElement.parentNode;
```

```
    const span = document.createElement('span');
```

```
    // span.innerHTML = 'show';
```

```
    span.innerHTML = '<i class="fa fa-eye-slash"></i>';
```

```
    span.addEventListener('click', () => {
```

```
      this.toggle(span);
```

```
    });
```

```
    parent.appendChild(span);
```

```
  }
```

```
  toggle(span: HTMLElement) {
```

```
    this._shown = !this._shown;
```

```
    if (this._shown) {
```

```
      this.el.nativeElement.setAttribute('type', 'text');
```

```
      // span.innerHTML = 'hide';
```

```
      span.innerHTML = '<i class="fa fa-eye"></i>';
```

```
    } else {
```

```

        this.el.nativeElement.setAttribute('type', 'password');
        // span.innerHTML = 'show';
        span.innerHTML = '<i class="fa fa-eye-slash"></i>';
    }
}
}

```

<https://stackblitz.com/edit/angular-password-hide-show-pjswes?file=src%2Fstyles.css>

54) Scroll to invalid fields in form

```

    if(!form.valid){
        this.scrollToError();
    }

    scrollTo(el: Element): void {
        if (el) {
            el.scrollIntoView({ behavior: 'smooth', block: 'center' });
        }
    }

    scrollToError(): void {
        const firstElementWithError = document.querySelector('.ng-invalid[formControlName]');
        this.scrollTo(firstElementWithError);
    }

```

ref:<https://levelup.gitconnected.com/reactive-form-validation-with-smooth-scrolling-to-errors-in-angular-8-57fa63b2689d>

55) build once deploy anywhere

ref:<https://medium.com/mighty-ghost-hack/configure-angular-environments-build-once-deploy-anywhere-c74ed53f0191>

56) ngbdropdown not to close when ngselect or select

```

(click)="$event.stopImmediatePropagation()"

```

ref:<https://github.com/basvandenberg/ng-select/issues/204>

57)ngOnDestroy

```
private subscriptions: Array<Subscription> = [];  
  
this.subscriptions.push()  
  
ngOnDestroy() {  
  this.subscriptions.forEach(each => each.unsubscribe());  
}
```

58)Reload or previous prevent modal dialogue

Typescript

```
@HostListener('window:beforeunload', ['$event'])  
beforeUnloadHandler(event: any) {  
  event.preventDefault();  
  event.returnValue = '';  
}
```

Javascript

```
window.addEventListener('beforeunload',event=>{  
  event.preventDefault();  
  event.returnValue = '';  
});
```

59)navigate to different tab or minimize browser

Typescript

```
@HostListener('document:visibilitychange', ['$event'])  
visibilitychange() {  
  this.checkHiddenDocument();  
}  
  
checkHiddenDocument() {  
  if (document.hidden) {  
    // this.pauseVideo();  
  } else {  
    // this.playVideo();  
  }  
}
```

```

        console.log('moved to new tab')
    }
}

```

Javascript

```

document.addEventListener("visibilitychange", function() {
    if (document.visibilityState === 'visible') {
    } else {
        console.log('Tab Changed')
    }
});

```

(or)

```

document.addEventListener("visibilitychange", ()=> {
    if (document.hidden) {
    } else {
        console.log('Tab changed')
    }
});

```

60)route change page scroll to top

<https://stackoverflow.com/questions/62324385/angular-9-scroll-to-top-on-route-every-change>

61)input field focus cursor in for loop

```

< div * ngFor= "let x of rows; let i = index" >
<b>Input {{ x }}</b>:
    < input(keyup.enter)="onEnter(i)" id = "input{{i}}" >
        <button (click)="onClick(i)" > Set Focus < /button>
    < /div>

```

```

public rows: any[] = [0, 1, 2, 3, 4];

```

```

onClick(index) {
    const next = index === this.rows.length ? 1 : index;
    document.getElementById(`input${next}`).focus();
}

```

62)input field focus cursor

```
< input id = "inputs" >
  <button (click)="onClick1()" > Set Focus < /button>

onClick1(index) {
  document.getElementById(`inputs`).focus();
}
```

63)every function with array of object value assign

```
let arr = [
  { 'name': "a", 'value': "4" },
  { 'name': "b", 'value': "2" },
  { 'name': "c", 'value': "5" },
];

arr.every((elem, index, arr) => {
  elem.value = '0'
  return true
})

console.log('arr', arr)
```

64)every function with array value assign

```
let arr = [1, 2, 3, 4];
arr.every((elem, index, arr) => {
  arr[index] = 8;
  return true
})

console.log('arr', arr)
```

65)every function form array validation

```
let arr = [
  { 'name': "", 'value': "4" },
  { 'name': "b", 'value': "2" },
  { 'name': "c", 'value': "5" },
];
```



```

let arr1 = arr.every((elem, index, arr) => {
  return elem.value !== "" && elem.name !== ""
})
if (arr1) {
  alert('success')
  return
} else {
  alert('asd')
}

```

66) get specific data or key value from array of object

```

{ id: 1, val: 3, items: { foo: 4, bar: 2 } },
{ id: 2, val: 2, items: { foo: 3, bar: 2 } },
{ id: 3, val: 1, items: { foo: 1, bar: 2 } }
];

let result = objArray.map(({ id, val }) => ({ id, val }))

console.log(result)

```

67) get specific data or key value from array of object inside object.

```

const objArray = [
  { id: 1, items: { foo: 4, bar: 2 } },
  { id: 2, items: { foo: 3, bar: 2 } },
  { id: 3, items: { foo: 1, bar: 2 } }
];

let result = objArray.map(({ id, items: { foo } }) => ({ id, foo }))

console.log(result)

```

68) get difference between two days

```

const diffDays = (date, otherDate) => Math.ceil(Math.abs(date - otherDate)
/ (1000 * 60 * 60 * 24));

// Example
diffDays(new Date('2014-12-19'), new Date('2020-01-01')); // 1839

```

<https://www.codegrepper.com/code-examples/javascript/count+days+between+dates+angular>

69) Cannot assign to read only property '0' of object '[object Array]

```
this.devices = devicesLoaded.map(device => { return { ...device }; });
```

70) Cannot assign to read only property '0' of object object object

```
obj = { ...object1 }
```

```
const object1 = {};
```

```
let obj = {};
```

```
Object.defineProperty(object1, 'property1', {  
  value: 42,  
  ['writable']: false,  
});
```

```
console.log('object1', object1);
```

```
// object1.property1 = 77;
```

```
obj = { ...object1 }
```

```
// throws an error in strict mode
```

```
obj.property1 = 99
```

```
console.log(obj);
```

71)checkbox maximum 3 should be select and to disabled

```
ts
```

```
maxNo = false;
```

```
amt = 0;
```

```
onChange(isChecked: boolean) {
```

```
  if (isChecked)
```

```
    this.amt++
```

```
  else
```

```
    this.amt--
```

```
  this.amt === 5 ? this.maxNo = true : this.maxNo = false;
```

```
}
```

```

checkBox = [
  { name: 'Daryl', checked: false },
  { name: 'Maggie', checked: false },
  { name: 'Rick', checked: false },
  { name: 'Carl', checked: false },
  { name: 'Negan', checked: false },
  { name: 'Carol', checked: false },
  { name: 'Michonne', checked: false },
  { name: 'Eugene', checked: false }
];

proceed() {
  if (this.checkBox[0].checked)
    alert('Thanks to Daryl Dixon, you have survived!!');
  else
    alert('You died! Daryl Dixon would have saved you...')
}

```

html

```

<div *ngFor="let chk of checkBox; let i = index">
  <input [(ngModel)]="chk.checked" type="checkbox" [disabled]="!chk.checked
  && maxNo" (change)="onChange($event.target.checked)">{{chk.name}}
</div>

<div *ngIf="maxNo">
  <p>5 people chosen. Are you sure about your choices???

```

<https://stackblitz.com/edit/angular-8ghcjz?file=app%2Fapp.component.ts>

72) checkbox maximum 3 should be select disable

```

<ul>
  <li *ngFor="let item of list">
    <input type="checkbox" [(ngModel)]="item.checked"
    [disabled]="this.result.length == 3 && item.checked == false
    ?true:false">{{item.title}}
  </li>
</ul>

```

```
</li>
</ul>
```

73) same route navigation without reload

html

```
(click)="sameroute('/current/route')"
```

ts

```
sameroute(val) {
  console.log('routes', val)
  this.router
    .navigateByUrl('/', { skipLocationChange: true })
    .then(() => this.router.navigate([val]));
}
```

74) Compare a nested array with another array and assign if values are same

const

```
    arrayA1 = [{ 13928: false, 13932: true, 13935: true, 13995: false }, {
13927: true, 14024: false }, { 13906: false, 13935: true, 13928: true,
14029: false }],
    arrayA2 = [{ id: 13995, nestedArray: [{ id: 13928, isVerificationMet:
false }, { id: 13932, isVerificationMet: false }, { id: 13935,
isVerificationMet: false }] }, { id: 14024, nestedArray: [{ id: 13927,
isVerificationMet: false }] }, { id: 14029, nestedArray: [{ id: 13906,
isVerificationMet: false }, { id: 13935, isVerificationMet: false }, { id:
13928, isVerificationMet: false }] }],
    result = arrayA2.map(({ id, nestedArray }) => ({
      id,
      nestedArray: nestedArray.map(o => ({
        ...o, isVerificationMet: arrayA1.find(q => id in q)?.[o.id]
      }))
    }));
```

```
console.log(result);
```

75) angular wit firebase notification.

```
https://github.com/firebase/quickstart-js/blob/e66ca9175db42053dc7edeeca3b1117ab6e41e19/messaging/index.html
```

76) firebase

```
https://medium.com/@a.adendrata/push-notifications-with-angular-6-firebase-cloud-messaging-dbf5fbc0eeb
```

part 1 == <https://youtu.be/ODE911c3ujY>

part 2 == <https://youtu.be/sLYm0cxXwhI>

77)

```
var data = [{
  "data": {
    "list": [{
      "name": "A",
      "key": "name",
    }, {
      "name": "B",
      "key": "title",
    }, {
      "name": "C",
      "key": "note",
    }, {
      "name": "D",
      "key": "desc",
    }],
    "show": [
      "title",
      "desc"
    ]
  }
}]

let d=data[0].data;
let arr= d.list.filter(x=> !d.show.includes(x.key));

console.log(arr);

//output
```

```
[
  {
    "name": "A",
    "key": "name"
  },
  {
    "name": "C",
    "key": "note"
  }
]
```

ref:<https://stackoverflow.com/questions/56835873/how-to-traverse-push-arrays-if-are-not-equal-to-values>

78) nested array object comparison with another array of elements and create new array using Javascript or ES6

```
const sectionDetail = [
  { id: 1, name: 'ma' },
  { id: 2, name: 'na' },
  { id: 3, name: 'ra' },
  { id: 4, name: 'ka' },
  { id: 5, name: 'pa' }];

const abc = [
  { id: '1', name: 'zam', sections: ['1', 4] },
  { id: '2', name: 'dam', sections: ['3'] },
  { id: '3', name: 'nam', sections: ['2', '4'] }
];

const desired = abc.map(({id, name, sections}) => {
  return {id, name, sections : sectionDetail.filter(f => {
    return sections.map(s => +s).includes(f.id)
  })});

})

console.log(desired);
```

output:

```
[
  {
    "id": "1",
    "name": "zam",
    "sections": [
      {
        "id": 1,
        "name": "ma"
      },
      {
        /**id:5**/
        "id": 4,
        "name": "ka"
      }
    ]
  },
  {
    "id": "2",
    "name": "dam",
    "sections": [
      {
        "id": 3,
        "name": "ra"
      }
    ]
  },
  {
    "id": "3",
    "name": "nam",
    "sections": [
      {
        "id": 2,
        "name": "na"
      },
      /**ref:5**/
    ]
  }
]
```

[ref:https://stackoverflow.com/questions/58310192/nested-array-object-comparison-with-another-array-of-elements-and-create-new-array](https://stackoverflow.com/questions/58310192/nested-array-object-comparison-with-another-array-of-elements-and-create-new-array)

79)how to loop through nested objects and push fields after comparing them in javascript

```
const data = [
  {group: {id: 1, name:"name1", accountNumber: 1234}, plan:{},
  plan_account:{}, plan_benefits:{}},
  {group: {id: 2, name:"name2", accountNumber: 1235}, plan:{},
  plan_account:{}, plan_benefits:{}},
  {group: {id: 3, name:"name3", accountNumber: 1234}, plan:{},
  plan_account:{}, plan_benefits:{}},
  {group: {id: 4, name:"name4", accountNumber: 1236}, plan:{},
  plan_account:{}, plan_benefits:{}},
  {group: {id: 5, name:"name5", accountNumber: 1237}, plan:{},
  plan_account:{}, plan_benefits:{}},
]

const exists = (result, obj) => !!result[obj.group.accountNumber];
const result = data.reduce((result, obj) => {
  result[obj.group.accountNumber] = !exists(result, obj) ? {id:
obj.group.id, accountNumber: obj.group.accountNumber} :
result[obj.group.accountNumber];
  return result;
}, {});
console.log(Object.values(result))
```

//output

```
[
  {
    "id": 1,
    "accountNumber": 1234
  },
  {
    "id": 2,
    "accountNumber": 1235
  },
  {
    "id": 3,
    "accountNumber": 1234
  },
  {
    "id": 4,
    "accountNumber": 1236
  },
  {
    "id": 5,
    "accountNumber": 1237
  }
]
```



```
    "id": 4,  
    "accountNumber": 1236  
  },  
  {  
    "id": 5,  
    "accountNumber": 1237  
  }  
]
```

reference:<https://stackoverflow.com/questions/62886563/how-to-loop-through-nested-objects-and-push-fields-after-comparing-them-in-javas>

80)group objects inside nested array

```
const parentArray = [[  
  {  
    key: 123,  
    value: 'India'  
  }, {  
    key: 124,  
    value: 'USA'  
  }, {  
    key: 125,  
    value: 'Japan'  
  }, {  
    key: 126,  
    value: 'Denmark'  
  }, {  
    key: 127,  
    value: 'Austria'  
  },  
], [  
  {  
    key: 124,  
    value: 'Kenya'  
  }, {  
    key: 126,  
    value: 'UK'  
  }, {
```

```

        key: 123,
        value: 'Germany'
    }, {
        key: 127,
        value: 'Spain'
    }, {
        key: 125,
        value: 'Portugal'
    },
    ]];
const map = {};
parentArray.forEach(arr => {
    arr.forEach(obj => {
        const { key, value } = obj;
        if (map[key]) {
            map[key].push(value);
        } else {
            map[key] = [value]
        }
    })
});
console.log(map);

//output

{
  '123': [ 'India', 'Germany' ],
  '124': [ 'USA', 'Kenya' ],
  '125': [ 'Japan', 'Portugal' ],
  '126': [ 'Denmark', 'UK' ],
  '127': [ 'Austria', 'Spain' ]
}

reference:https://www.tutorialspoint.com/group-objects-inside-the-nested-array-javascript

```

81) Comparing arrays of objects with nested array of object

```

const
    arrayA = [{ value: "#0767b9", id: 162, productId: 1 }, { value:
"#f4b7d4", id: 164, productId: 1 }], [{ value: "#44acd8", id: 102,
productId: 2 }], [{ value: "#609923", id: 106, productId: 3 }, { value:
"#ee3b70", id: 107, productId: 3 }]],
    arrayB = [{ id: 1, optionValue: [{ value: "#002e63", id: 161,
productId: 1 }, { value: "#0767b9", id: 162, productId: 1 }, { value:
"#010b1d", id: 163, productId: 1 }, { value: "#f4b7d4", id: 164,
productId: 1 } ] }, { id: 2, optionValue: [{ value: "#EC7063", id: 93,
productId: 2 }, { value: "#bf0000", id: 94, productId: 2 }, { value:
"#44acd8", id: 102, productId: 2 }, { value: "#ffdbdb", id: 103,
productId: 2 } ] }, { id: 3, optionValue: [{ value: "#d861bd", id: 105,
productId: 3 }, { value: "#609923", id: 106, productId: 3 }, { value:
"#ee3b70", id: 107, productId: 3 } ] }, { id: 4, optionValue: [{ value:
"#44acd8", id: 165, productId: 4 } ] } ],
    identifiers = arrayA.reduce((r, a) => {
        a.forEach(({ id, productId }) => (r[productId] = r[productId] ||
{}))[id] = true);
        return r;
    }, {}),
    result = arrayB.map(o => identifiers[o.id]
        ? { ...o, optionValue: o.optionValue.filter(({ id, productId }) =>
identifiers[productId][id]) }
        : o
    );

    console.log(result);

```

```
//output
```

```

[
  {
    "id": 1,
    "optionValue": [
      {
        "value": "#0767b9",
        "id": 162,
        "productId": 1
      },
    ],
  },

```

```
{
  "value": "#f4b7d4",
  "id": 164,
  "productId": 1
}
],
{
  "id": 2,
  "optionValue": [
    {
      "value": "#44acd8",
      "id": 102,
      "productId": 2
    }
  ]
},
{
  "id": 3,
  "optionValue": [
    {
      "value": "#609923",
      "id": 106,
      "productId": 3
    },
    {
      "value": "#ee3b70",
      "id": 107,
      "productId": 3
    }
  ]
},
{
  "id": 4,
  "optionValue": [
    {
      "value": "#44acd8",
      "id": 165,
      "productId": 4
    }
  ]
}
```

```
]
}
]
```

reference:<https://stackoverflow.com/questions/65679664/javascript-comparing-arrays-of-objects-with-nested-array-of-object>

82)two div with search

```
public originalData = [
  {
    productId: 290,
    id: 1067,
    taxType: 0,
    taxValue: 0,
    skuId: 2600,
    price: '1000.00',
    name: 'chocolate',
    isSimplified: 0,
    description: 'chocolate',
    quantity: 50,
    rating: null,
    productSlug: 'bb123',
    hasStock: 0,
    outOfStockThreshold: null,
    containerName: 'Product/Electronics/Laptops/',
    image: 'Img_1557483575649.jpeg',
    defaultImage: 1,
    skuName: 'choco1231',
    productDiscount: null,
    productSpecial: null,
    pricerefer: '',
    flag: '',
    stockStatus: 'inStock',
    wishListStatus: 0,
```

```
},
{
  productId: 291,
  id: 1067,
  taxType: 0,
  taxValue: 0,
  skuId: 2600,
  price: '1000.00',
  name: 'chocolate 2',
  isSimplified: 0,
  description: 'chocolate 1',
  quantity: 50,
  rating: null,
  productSlug: 'bb123',
  hasStock: 0,
  outOfStockThreshold: null,
  containerName: 'Product/Electronics/Laptops/',
  image: 'Img_1557483575649.jpeg',
  defaultImage: 1,
  skuName: 'choco1231',
  productDiscount: null,
  productSpecial: null,
  pricerefer: '',
  flag: '',
  stockStatus: 'inStock',
  wishListStatus: 0,
},
{
  productId: 1384,
  id: 1068,
  taxType: 1,
  taxValue: 0,
  skuId: 2159,
  price: '500.00',
  name: 'Hopscotch Girl Empire Knee Length Dress',
  isSimplified: 1,
  description:
    '<ul>\n\t<li>Care Instructions: Gentle Wash</li>\n\t<li>Fit Type: Regular</li>\n\t<li>Material: 95%Cotton+ 5% Polyester</li>\n\t<li>Care
```

Instruction: Gentle Wash\n\tAll Dimensions are in cms :- Casual Dresses: Length: 46 cm , Chest: 58 cm\n\n',

```
    quantity: 100,
    rating: '5.00',
    productSlug: 'hopscotch-girl-empire-knee-length-dress',
    hasStock: 0,
    outOfStockThreshold: null,
    containerName: 'Ven0191/',
    image: '610egeH1iOL_1634018940718.jpeg',
    defaultImage: 1,
    skuName: 'SKU74564867',
    productDiscount: null,
    productSpecial: null,
    pricereter: '',
    flag: '',
    stockStatus: 'inStock',
    wishListStatus: 0,
  },
];
```

```
public selectedDatas = [];
filval = '';
filvall = '';
```

```
selectData(data) {
  this.originalData.forEach((val, i) => {
    if (val.productId == data.productId) {
      this.selectedDatas.push(val);
      this.originalData.splice(i, 1);
    }
  });
}
```

```
unselectData(value) {
  console.log('value', value);
  this.selectedDatas.forEach((val, i) => {
    if (val.productId == value.productId) {
      this.originalData.push(val);
      this.selectedDatas.splice(i, 1);
    }
  });
}
```

```

    });
  }

//html

<div style="display: flex;
justify-content: space-evenly;">
<div style="color:blue;">
<h1>Unselected Data</h1>
<ul>
  <li *ngFor="let data of originalData | search: [filval]: ['name'] ;">
    <a (click)="selectData(data)">{{data.name}}</a>
  </li>
  // <tr *ngFor="let item of array | search: [name.value, category.value]:
['name', 'catName'] ;">
</ul>

</div>

<div style="color:grey;">
<h1>Selected Data</h1>
<ul>
<li *ngFor="let datas of selectedDatas | search: [filval1]: ['name'] ;">
  <a (click)="unselectData(datas)">{{datas.name}}</a>
</li>
</ul>
</div>
</div>

//search.pipe.ts

import { Pipe, PipeTransform } from "@angular/core";
@Pipe({
  name: "search",
  pure:false
})
export class SearchPipe implements PipeTransform {

```



```

transform(list: any[], value: [], key: []): any {
  console.log('value',value)
  value.forEach((name, index) => {
    if (name) {
      console.log('name',name)
      list = list.filter((item) => {
        return (item[key[index]]
          .toString()
          .toLowerCase()
          .indexOf(name.toString().toLowerCase()) !== -1)
      });
    }
  });
  return list;
}
}

```

```

import { SearchPipe} from './search.pipe';

```

```

  declarations: [SearchPipe ],

```

```

ref:https://stackblitz.com/edit/angular-multiple-search-filters-zutrsb?file=src%2Fapp%2Fapp.component.html,src%2Fapp%2Fapp.component.ts,src%2Fapp%2Fhello.component.ts,src%2Fapp%2Fsearch.pipe.ts,src%2Fapp%2Fapp.module.ts

```

83) search pipe multiple column with single input

html

```

<label for="name">Name </label>
<input type="text" id="name" [formControl]="name"/>
<table>
  <tr>
    <th>Name</th>
    <th>Category</th>
  </tr>
  <tr *ngFor="let item of array | search: name.value;">
    <td>{{item.name}}</td>

```

```
<td>{{item.catName}}</td>
</tr>
</table>

ts

name = new FormControl('');

array = [
  {
    name: 'Ali',
    catName: 'Human',
  },
  {
    name: 'Ahmed',
    catName: 'Human',
  },
  {
    name: 'Alexa',
    catName: 'Robot',
  },
  {
    name: 'Tom',
    catName: 'Robot',
  },
  {
    name: 'Thompson',
    catName: 'Human',
  },
  {
    name: 'Peter',
    catName: 'Human',
  },
  {
    name: 'Peshawar',
    catName: 'City',
  },
]

/*search.pipe.ts */
import { Pipe, PipeTransform } from "@angular/core";
```

```

@Pipe({
  name: "search"
})

export class SearchPipe implements PipeTransform {

  transform(value:any[],searchString:string ){

    if(!searchString){
      console.log('no search')
      return value
    }

    return value.filter(it=>{
      const name = it.name.toLowerCase().includes(searchString)
      const catName =
it.catName.toLowerCase().includes(searchString.toLowerCase())
      return (name + catName);
    })
  }
}

```

84) search multiple column with single input(easy)

```

array = [
  {
    name: 'Ali',
    catName: 'Human22',
  },
  {
    name: 'Ahmed',
    catName: 'Human2',
  },
  {
    name: 'Alexa',
    catName: 'Robot',
  },
  {
    name: 'Tom',
    catName: 'Robot',
  },

```

```

    },
    {
      name: 'Thompson',
      catName: 'Human',
    },
    {
      name: 'Peter',
      catName: 'Human',
    },
    {
      name: 'Peshawar',
      catName: 'City',
    },
  ],
  name = new FormControl('');

//html

<label for="name">Name </label>
<input type="text" id="name" [formControl]="name"/>
<table>
  <tr>
    <th>Name</th>
    <th>Category</th>
  </tr>
  <tr *ngFor="let item of array | search:['name','catName']:name.value">
    <!-- <tr *ngFor="let item of array | search:'name':name.value">-->

    <td>{{item.name}}</td>
    <td>{{item.catName}}</td>
  </tr>
</table>

//searchpipe.ts

@Pipe({
  name: 'search',
  pure: false
})

```

```

export class SearchPipe implements PipeTransform {
  transform(items: any[], field : any, value : string): any[] {
    if (!items) return [];
    if (typeof field == 'string') {
      let rtItems:any = items;
      try{
        rtItems = items.filter(it =>
it[field].toLowerCase().indexOf(value.toLowerCase()) > -1 );
      }finally{
        return rtItems;
      }
    }else{
      let rtItems:any = items;
      try{
        rtItems = items.filter(it => {
          for(let f of field){
            if(it[f].toLowerCase().indexOf(value.toLowerCase())
> -1){
              return true;
            }
          }
        });
      }finally{
        return rtItems;
      }
    }
  }
}

```

85)file download progress ts file

```

    let url = this.baseUrl +
'/download/item-data-download-key?customerCode=' + this.customerDetails +
'&key=' + this.downloadKey;
    this.http.get(url, { responseType: 'blob', reportProgress: true,
observe: 'events' }).subscribe(event => {

```

```

        if (event.type === HttpEventType.DownloadProgress) {
            this.percentDone = Math.round(100 * event.loaded / event.total);
        }
        if (event.type === HttpEventType.Response) {
            const filename = this.downloadKey + Date.now() + '.xlsx';
            const blob = new Blob([(event['body'])], { type: 'text/xlsx' });
            saveAs(blob, filename);
        }
    }
}

)

```

85)queryParams (html)

```

<button [routerLink]="['routerlink']"
        queryParamsHandling="preserve"> Back </button>

```

ts

```

this.router.navigate([routerlink], { queryParamsHandling: 'preserve' })

```

Ts

```

        this.router.navigate(['routerlink'], { queryParams: { page:
this.currentPage, itemType: this.itemType }, queryParamsHandling: "merge"
});

```

85)outside div to close model or div

ts

```

isMenuOpen = false;

```

```

@ViewChild('toggleButton') toggleButton: ElementRef;
@ViewChild('menu') menu: ElementRef;

```

```

constructor(private renderer: Renderer2) {

```

```

    this.renderer.listen('window', 'click', (e:Event)=>{
        if(e.target !== this.toggleButton.nativeElement &&
e.target!==this.menu.nativeElement){
            this.isMenuOpen=false;
        }
    });
}

toggleMenu() {
    this.isMenuOpen = !this.isMenuOpen;
}

html

<button #toggleButton (click)="toggleMenu()"> Toggle Menu</button>

<div class="menu" *ngIf="isMenuOpen" #menu>
I'm the menu. Click outside to close me
</div>

ref:https://www.angularfix.com/2022/01/how-to-detect-click-outside-of-element.html

```

86) Ngb date picker maxdate today

html

```
[maxDate]="todaysDate"
```

ts

```
todaysDate: any;
```

```

this.todaysDate = {
    year: new Date().getFullYear(),

```

```

    month: new Date().getMonth() + 1,
    day: new Date().getDate()
  };
};

```

87) Ngb date picker set to previous months

```

    public datePipe: DatePipe

    const date2 = new Date();
    let b;
    b = new Date(date2.getFullYear(), date2.getMonth() - 2, 1);
    this.todayDate = {
      year: Number(this.datePipe.transform(b, "yyyy")),
      month: Number(this.datePipe.transform(b, "MM")),
      day: 1
    };
};

```

88) form value changes

```

    this.form.valueChanges.subscribe(x => {
      console.log(x)
    })

```

89) form single field value changes

```

    this.form.get("firstName").valueChanges.subscribe(x => {
      console.log('firstname value changed')
      console.log(x)
      console.log(this.reactiveForm.get("firstname").value) //updates
latest value
      console.log(this.form.value) //still shows the old first name
    })

```

```

    this.form.get("firstName").valueChanges.subscribe(x => {
      console.log('firstname value changed')
      console.log(x)
      console.log(this.form.value) //still shows the old first name
    })

```



```

        setTimeout(() => {
            console.log('after',this.form.value)    //shows the new first
name
        })

    })

```

90)ValueChanges of FormGroup

```

        this.reactiveForm.get("address").valueChanges.subscribe(selectedValue
=> {
            console.log('address changed')
            console.log(selectedValue)
        })

```

ref:<https://www.tektutorialshub.com/angular/valuechanges-in-angular-forms/>

91)filter methods

<https://danielk.tech/home/angular-how-to-apply-filters-to-ngfor#custom-filter-pipe>

92)scroll to last element in div

<https://stackblitz.com/edit/angular-dam13i?file=app%2Fapp.component.ts>

93)scroll to last element (easy)

html

```

<button (click)="buttons()">scroll</button>
<button (click)="getData()">Get Data</button>

<ul *ngIf="users">
    <li #user *ngFor="let userDetails of users">
        <h1>{{ userDetails.name }}</h1>
        <h2>{{ userDetails.username }}</h2>
        <h3>{{ userDetails.email }}</h3>
    </li>

```

```
</ul>
```

```
ts
```

```
import {
  Component,
  ChangeDetectorRef,
  ViewChildren,
  ElementRef,
  QueryList,
  NgZone,
} from '@angular/core';

users: any = [];
@ViewChildren('user', { read: ElementRef })
renderedUsers: QueryList<ElementRef>;
indexToScrollTo = 4;

buttons() {
  this.indexToScrollTo = this.users.length - 1;
  const userToScrollOn = this.renderedUsers.toArray();
  userToScrollOn[this.indexToScrollTo]?.nativeElement.scrollIntoView({
    behavior: 'smooth',
  });
}
```

[ref:https://stackblitz.com/edit/angular-scroll-to-item-in-list-after-data-is-fetched-from-api?file=src%2Fapp%2Fapp.component.ts,src%2Fapp%2Fapp.component.html](https://stackblitz.com/edit/angular-scroll-to-item-in-list-after-data-is-fetched-from-api?file=src%2Fapp%2Fapp.component.ts,src%2Fapp%2Fapp.component.html)

```
94)scroll to last element
```

[ref:https://stackblitz.com/edit/angular-scroll-bottom?file=app%2Ftodos.service.ts](https://stackblitz.com/edit/angular-scroll-bottom?file=app%2Ftodos.service.ts)

```
95)scroll to last
```

```
setTimeout(() => {
```

```

        document.getElementById('scroll').scrollTop =
document.getElementById('scroll').scrollHeight
        console.log("document.getElementById('scroll')",
document.getElementById('scroll'));
    }, 500)

```

96)error subscribe

```

getUser(id){
    return this.http.get('http:..../' + id)
        .map(res => res.json())
        .catch(this.handleError);
}

private handleError(error: any) {
    let errMsg = (error.message) ? error.message : error.status ?
`${error.status} - ${error.statusText}` : 'Server error';
    return Observable.throw(error);
}

```

97)difference between two days

```

let firstDate = moment('2019/03/31');
let secondDate = moment('2019/04/01');
const diffInDays = Math.abs(this.firstDate.diff(this.secondDate, 'days'));
const daysDiff = Math.floor(Math.abs(<any>firstDate - <any>secondDate) /
(1000*60*60*24));

console.log('daysDiff',daysDiff,)

```

98)ngb date compare

```

    startdate: {year: number, month: number,day:number};
    todaydate:any;
    public errors:any=false;
    constructor(private calendar: NgbCalendar) {
        this.todaydate = {
            year: new Date().getFullYear(),
            month: new Date().getMonth() + 1,
            day: new Date().getDate()

```

```

    };
}

submit() {
    const date: NgbDate = new NgbDate(this.startdate.year,
this.startdate.month, this.startdate.day);
    let condition1=date.after(this.todaydate);
    console.log('conditions',condition1,date.before(this.todaydate))
    let condition= date.equals(NgbDate.from({ year: this.todaydate.year,
month: this.todaydate.month, day: this.todaydate.day }));
    if(condition1||condition){
        this.errors=false;
    }else{
        this.errors=true;
    }
    console.log('condition',condition)
    console.log('if',condition1||condition)

    (or)

    const date: NgbDate = new NgbDate(this.startdate.year,
this.startdate.month, this.startdate.day);
    let condition = (date.after(this.todaydate)) ||
(date.equals(NgbDate.from({ year: this.todaydate.year, month:
this.todaydate.month, day: this.todaydate.day })))
    if(condition==true){
        this.errors=false
    }else{
        this.errors=true;
    }
}

<ngb-datepicker #dp [(ngModel)]="startdate"></ngb-datepicker>
<p *ngIf="errors">error</p>

<button (click)="submit()">click</button>

```

ref:<https://stackblitz.com/edit/angular-drdelm?file=src%2Fapp%2Fdatepicker-basic.html,src%2Fapp%2Fdatepicker-basic.ts,src%2Fapp%2Fdatepicker-basic.module.ts>

(or)

```
    if
(moment(this.todayDate).isSameOrAfter(this.taskForm.value.reviewDate)) {
    this.ShowErrorForReview = false;
  } else {
    this.ShowErrorForReview = true;
    return;
  }
```

99)ngb date picker compare

```
    startdate: {year: number, month: number,day:number};
    enddate: {year: number, month: number,day:number};
    todaydate:any;
    public errors:any=false;
    public enderror:any=false;
    constructor(private calendar: NgbCalendar) {
      this.todaydate = {
        year: new Date().getFullYear(),
        month: new Date().getMonth() + 1,
        day: new Date().getDate()
      };
    }

    isValid(){

      const Startdate: NgbDate = new NgbDate(this.startdate?.year,
this.startdate?.month, this.startdate?.day);
      let isValidStartdate = (Startdate.after(this.todaydate)) ||
(Startdate.equals(NgbDate.from({ year: this.todaydate.year, month:
this.todaydate.month, day: this.todaydate.day })))
```

```

    const Enddate: NgbDate = new NgbDate(this.enddate?.year,
this.enddate?.month, this.enddate?.day);

    let isValidenddate = (Enddate.after(this.todaydate)) ||
(Enddate.equals(NgbDate.from({ year: this.todaydate.year, month:
this.todaydate.month, day: this.todaydate.day })))

    if((isValidstartdate==true)){
        this.errors=false;
    }else{
        this.errors=true;
    }

    if((isValidenddate==true)){
        this.enderror=false;
    }else{
        this.enderror=true;
    }

    return [this.errors,this.enderror];

}

```

```

submit() {

```

```

    // console.log('asd',this.isValid())
    let dateValid=this.isValid();
    if(dateValid[0]==true || dateValid[1]==true){
        return
    }
    alert('hiiii')

```

```

}

```

```

html

```

```

<ngb-datepicker #dp [(ngModel)]="startdate"></ngb-datepicker>
<p *ngIf="errors">start date error</p>
<hr />
<ngb-datepicker #dp [(ngModel)]="enddate"></ngb-datepicker>
<p *ngIf="enderror">end date error</p>

```

```
<button (click)="submit()">click</button>
```

100) array of object inside object based on condition

```
this.list = [
  {
    "moduleName": "Job Introduction",
    "moduleAliasName": "Job Introduction",
    "moduleSlugName": "job_introduction",
    "moduleRoutes": "job-intro",
    "sequenceId": 1
  },
  {
    "moduleName": "About us",
    "moduleAliasName": "About Us",
    "moduleSlugName": "about_us",
    "moduleRoutes": "about",
    "sequenceId": 2,
    "childModule":
      [
        {
          "moduleName": "Who we are",
          "moduleAliasName": "Who We Are",
          "moduleSlugName": "who_we_are",
          "moduleRoutes": "whoweare",
          "sequenceId": 3
        },
        {
          "moduleName": "TimeLine",
          "moduleAliasName": "TimeLine",
          "moduleSlugName": "timeline",
          "moduleRoutes": "timeline",
          "sequenceId": 4
        },
        {
          "moduleName": "Core Team",
          "moduleAliasName": "Core Team",
          "moduleSlugName": "core_team",
```

```
"moduleRoutes": "core-team",
  "sequenceId": 5
},
{
  "moduleName": "Hear it from them",
  "moduleAliasName": "Hear it from them",
  "moduleSlugName": "hear_it_from_them",
  "moduleRoutes": "hear-from",
  "sequenceId": 6
},
{
  "moduleName": "CEO story",
  "moduleAliasName": "CEO story",
  "moduleSlugName": "ceo_story",
  "moduleRoutes": "ceo-story",
  "sequenceId": 7
},
{
  "moduleName": "Funding",
  "moduleAliasName": "Funding",
  "moduleSlugName": "funding",
  "moduleRoutes": "funding",
  "sequenceId": 8
},
{
  "moduleName": "Your peer group",
  "moduleAliasName": "Your peer group",
  "moduleSlugName": "your_peer_group",
  "moduleRoutes": "peer-group",
  "sequenceId": 9
},
{
  "moduleName": "Talent acquisition",
  "moduleAliasName": "Talent acquisition",
  "moduleSlugName": "talent_acquisition",
  "moduleRoutes": "talent",
  "sequenceId": 9
},
{
  "moduleName": "Product service",
```



```
        "moduleAliasName": "Product service",
        "moduleSlugName": "product_service",
        "moduleRoutes": "product-service",
        "sequenceId": 10
    }

]

},
{
    "moduleName": "More in detail",
    "moduleAliasName": "More in detail",
    "moduleSlugName": "more_in_detail",
    "moduleRoutes": "more-in-detail",
    "sequenceId": 11,
    "childModule":
    [
        {
            "moduleName": "Vision",
            "moduleAliasName": "Vision",
            "moduleSlugName": "vision",
            "moduleRoutes": "vision",
            "sequenceId": 12
        },
        {
            "moduleName": "Mission",
            "moduleAliasName": "Mission",
            "moduleSlugName": "mission",
            "moduleRoutes": "mission",
            "sequenceId": 13
        },
        {
            "moduleName": "Culture",
            "moduleAliasName": "Culture",
            "moduleSlugName": "culture",
            "moduleRoutes": "culture",
            "sequenceId": 14
        },
        {
            "moduleName": "Clientele",
```

```
        "moduleAliasName": "clientele",
        "moduleSlugName": "clientele",
        "moduleRoutes": "clientele",
        "sequenceId": 15
    }
]

},
{
    "moduleName": "Benefits",
    "moduleAliasName": "Benefits",
    "moduleSlugName": "benefits",
    "moduleRoutes": "benefit",
    "sequenceId": 16
},
{
    "moduleName": "Job description",
    "moduleAliasName": "Job description",
    "moduleSlugName": "Job description",
    "moduleRoutes": "job-desc",
    "sequenceId": 17
},
{
    "moduleName": "Gallery",
    "moduleAliasName": "Gallery",
    "moduleSlugName": "gallery",
    "moduleRoutes": "gallery",
    "sequenceId": 18,
    "childModule":
        [
            {
                "moduleName": "Work",
                "moduleAliasName": "work",
                "moduleSlugName": "work",
                "moduleRoutes": "work",
                "sequenceId": 19
            },
            {
                "moduleName": "Outdoor",
                "moduleAliasName": "Outdoor",
```

```
        "moduleSlugName": "outdoor",
        "moduleRoutes": "outdoor",
        "sequenceId": 20
    },
    {
        "moduleName": "Fun & Culture",
        "moduleAliasName": "Fun & Culture",
        "moduleSlugName": "fun_culture",
        "moduleRoutes": "fun-culture",
        "sequenceId": 21
    }
]
},
{
    "moduleName": "Online Feed",
    "moduleAliasName": "Online Feed",
    "moduleSlugName": "online_feed",
    "moduleRoutes": "online-feed",
    "sequenceId": 22
},
{
    "moduleName": "Q&A",
    "moduleAliasName": "Q&A",
    "moduleSlugName": "question_answer",
    "moduleRoutes": "question-answer",
    "sequenceId": 23
},
{
    "moduleName": "Other Opening",
    "moduleAliasName": "Other Opening",
    "moduleSlugName": "other_opening",
    "moduleRoutes": "other-opening",
    "sequenceId": 24
},
{
    "moduleName": "Reasons for Decling",
    "moduleAliasName": "Reasons for Decling",
    "moduleSlugName": "reasons_for_decling",
    "moduleRoutes": "reasons",
    "sequenceId": 25
}
```

```

        },
        {
            "moduleName": "Interested",
            "moduleAliasName": "Interested",
            "moduleSlugName": "interested",
            "moduleRoutes": "interested",
            "sequenceId": 27
        },
        {
            "moduleName": "Show case panel",
            "moduleAliasName": "Show case panel",
            "moduleSlugName": "show_case_panel",
            "moduleRoutes": "showcase-panel",
            "sequenceId": 28
        }
    ];

    this.list.map(val => {
        val?.childModule?.forEach((data: any) => {
            data.selected = false;
        })
        // console.log('val at onint', this.list)
    })

    let a=this.list?.map((element) => {
        console.log('e',element)
        return {...element, childModule:
element?.childModule?.filter((subElement) => subElement.selected == true)}
    })

    let final=  a.filter(val=>{
        console.log('val',val.childModule!=undefined)
        return val.childModule!=undefined && val.childModule.length>0;
    })
    console.log('a',a,final)

ref:https://stackoverflow.com/questions/38375646/filtering-array-of-object
s-with-arrays-based-on-nested-value

```

101) parent and child checkbox

html

```
<div class="form-group">
<div class="custom-control custom-checkbox mr-sm-2" *ngFor="let data of
list">
<input type="checkbox" class="custom-control-input"
(change)="checkparent(data,0)" id="{{ data.moduleAliasName }}"
[ngModelOptions]="{ standalone: true }" [(ngModel)]="data.selected" />
<label class="custom-control-label" for="{{ data.moduleAliasName
}}">{{data.moduleName}}-{{data.selected}}</label>
<br>
<div class="custom-control custom-checkbox a ml-9" *ngFor="let datas of
data.childModule">
<input type="checkbox" class="custom-control-input"
(change)="checkparent(data,1)" id="{{ datas.moduleSlugName }}"
[ngModelOptions]="{ standalone: true }" [(ngModel)]="datas.checked" />
<label class="custom-control-label" id="{{ datas.moduleSlugName }}"
>{{datas.moduleName}}-{{datas.checked}}</label>
</div>
</div>
</div>
```

ts

```
public list = [];
public checkedList = [];
public templist = [
  {
    moduleName: 'Perks & Benefits',
    moduleAliasName: 'Perks & Benefits',
    moduleSlugName: 'benefits',
    moduleRoutes: 'benefit',
    sequenceId: 4,
  },
  {
    moduleName: 'Tech Stack',
    moduleAliasName: 'Tech Stack',
```

```
    moduleSlugName: 'tech_stack',
    moduleRoutes: 'tech-stack',
    sequenceId: 5,
  },
  {
    moduleName: 'Online Feed',
    moduleAliasName: 'Online Feed',
    moduleSlugName: 'online_feed',
    moduleRoutes: 'online-feed',
    sequenceId: 12,
  },
  {
    moduleName: 'FAQs',
    moduleAliasName: 'FAQs',
    moduleSlugName: 'question_answer',
    moduleRoutes: 'question-answer',
    sequenceId: 13,
  },
  {
    moduleName: 'Company Culture',
    moduleAliasName: 'Company Culture',
    moduleSlugName: 'company_culture',
    moduleRoutes: 'company-culture',
    sequenceId: 14,
  },
  {
    moduleName: 'Testimonials',
    moduleAliasName: 'Testimonials',
    moduleSlugName: 'testimonials',
    moduleRoutes: 'testimonials',
    sequenceId: 15,
  },
  {
    moduleName: 'About',
    moduleAliasName: 'About',
    moduleSlugName: 'about',
    moduleRoutes: 'about',
    sequenceId: 1,
    childModule: [
      {
```

```
    moduleName: 'About Company',
    moduleAliasName: 'About Company',
    moduleSlugName: 'adout_company',
    moduleRoutes: 'about-company',
    sequenceId: 2,
  },
  {
    moduleName: 'Founder story',
    moduleAliasName: 'Founder story',
    moduleSlugName: 'founder_story',
    moduleRoutes: 'founder-story',
    sequenceId: 3,
  },
],
},
{
  moduleName: 'Team',
  moduleAliasName: 'Team',
  moduleSlugName: 'team',
  moduleRoutes: 'team',
  sequenceId: 6,
  childModule: [
    {
      moduleName: 'Core Team',
      moduleAliasName: 'Core Team',
      moduleSlugName: 'core_team',
      moduleRoutes: 'core-team',
      sequenceId: 7,
    },
    {
      moduleName: 'Other Team',
      moduleAliasName: 'Other Team',
      moduleSlugName: 'other_team',
      moduleRoutes: 'other-team',
      sequenceId: 8,
    },
  ],
},
{
  moduleName: 'Gallery',
```

```

moduleAliasName: 'Gallery',
moduleSlugName: 'gallery',
moduleRoutes: 'gallery',
sequenceId: 9,
childModule: [
  {
    moduleName: 'Image',
    moduleAliasName: 'Image',
    moduleSlugName: 'image',
    moduleRoutes: 'image',
    sequenceId: 10,
  },
  {
    moduleName: 'Video',
    moduleAliasName: 'Video',
    moduleSlugName: 'video',
    moduleRoutes: 'video',
    sequenceId: 11,
  },
],
},
];

ngOnInit() {
  this.list = JSON.parse(JSON.stringify(this.templist));
  this.list.forEach((val) => {
    if (val) {
      val.selected = false;
    }
    if (val.childModule) {
      val.childModule.forEach((datass) => {
        datass.checked = false;
      });
    }
  });
}

name = 'Angular ' + VERSION.major;

checkparent(val,type) {
  console.log('this.list',val)
  if(type==0){

```



```

    if (val.selected == true) {
      this.list.forEach((parent) => {
        if (val.moduleSlugName == parent.moduleSlugName) {
          parent?.childModule?.forEach((child) => {
            child.checked = true;
          });
        }
      });
    } else {
      this.list.forEach((parent) => {
        if (val.moduleSlugName == parent.moduleSlugName) {
          parent.childModule.forEach((child) => {
            child.checked = false;
          });
        }
      });
    }
  }

  if(type==1){
    this.list.forEach((parent) => {
      if (val.moduleSlugName == parent.moduleSlugName) {
        let selectedAll = parent?.childModule?.every(function (item:
any) {
          return item.checked === false;
        });
        parent.selected = !selectedAll
        console.log('seeeeeee',selectedAll)
      }
    });
  }

  }

  let a = this.list?.map((element) => {
    // console.log('e', element)
  })

```

```

return {
    ...element,
    childModule: element?.childModule?.filter(
        (subElement: any) => subElement?.checked == true
    ),
};
});

let final = a.filter((val) => {
    // console.log('val', val.childModule != undefined)
    return (
        val.selected == true ||
        (val.childModule != undefined && val.childModule.length > 0)
    );
});

let result = final.map(val=>val.childModule == undefined ? (delete
val.childModule, val):val);

console.log('final', result);
}

```

(or)

```

checkparent(val,type) {
    console.log('this.list',val)
    if(type==0){
        this.list.forEach((parent) => {
            if (val.moduleSlugName == parent.moduleSlugName) {
                parent?.childModule?.forEach((child) => {
                    child.checked = val.selected == true?true:false
                });
            }
        });
    }

    else if(type==1){
        this.list.forEach((parent) => {
            if (val.moduleSlugName == parent.moduleSlugName) {

```

```

        let selectedAll = parent?.childModule?.every(function (item:
any) {
            return item.checked === false;
        });
        parent.selected = !selectedAll
        console.log('seeeeeeee',selectedAll)
    }
});

}

```

```

let a = this.list?.map((element) => {
    return {
        ...element,
        childModule: element?.childModule?.filter(
            (subElement: any) => subElement?.checked == true
        ),
    };
});

```

```

let final = a.filter((val) => {
    return (
        val.selected == true ||
        (val.childModule != undefined && val.childModule.length > 0)
    );
});

```

```

        let result = final.map(val=>val.childModule == undefined ? (delete
val.childModule, val):val);

    }

```

102)remove object based on condition

```

var obj = [{ id: 1, field: "finance"}, { id: null, field: "service"}, {
id: 2, field: "information"}]
result = obj.map(val=>val.id ? val : (delete val.id, val));
console.log(result);

```

```

[
  {
    "id": 1,
    "field": "finance"
  },
  {
    "field": "service"
  },
  {
    "id": 2,
    "field": "information"
  }
]

```

103)Ellipsis directive

```

declaration:[EllipsifyMeDirective]

```

```

ellipsify-me.directive.ts

```

```

import { Directive, HostListener, ElementRef, AfterViewInit, Renderer2 }
from '@angular/core';

```

```

@Directive({
  selector: '[appEllipsifyMe]'
})

```

```

export class EllipsifyMeDirective implements AfterViewInit {
  domElement: any;
  constructor(private renderer: Renderer2, private elementRef: ElementRef)
  {
    this.domElement = this.elementRef.nativeElement; // to get DOM element
    and store it in global variable
    // setting compulsory required styles to the DOM element

```

```

const ellipsifyme = {
  'text-overflow': 'ellipsis',
  'overflow': 'hidden',
  'white-space': 'nowrap',
};

Object.keys(ellipsifyme).forEach(newStyle => {
  this.renderer.setStyle(
    this.domElement, `${newStyle}`, ellipsifyme[newStyle]
  );
});
}

// to check and add title attribute on the element at the time when
application renders first time.
ngAfterViewInit(): void {
  // to see effect try removing below two lines and check if the title
  is added at the first time rendering.
  this.renderer.setProperty(this.domElement, 'scrollTop', 1);
  this.isTitleAttribute();
}

@HostListener("window:resize", ["$event.target"])
isTitleAttribute() {
  // to add or remove title attribute on the element when it is changing
  width.
  (this.domElement.offsetWidth < this.domElement.scrollWidth) ?
    this.renderer.setAttribute(this.domElement, 'title',
this.domElement.textContent) :
    this.renderer.removeAttribute(this.domElement, 'title');
}

}

html
<div appEllipsifyMe>{{longText}}</div>
<div appEllipsifyMe class="z-index">{{longText}}</div>

```

<https://stackblitz.com/edit/ng-ellipsiswithtooltip?embed=1&file=src/app/app.component.html>

104) Array

1. indexOf()-find an item's index

```
const myPets=['Dog','Cat','Hamster'];  
myPets.indexOf('Cat')→//1
```

2. join()-create a string from array items

```
const myPets=['Dog','Cat','Hamster'];  
myPets.join('and');//'Dog and Cat and Hauster'
```

3. slice()-split an array at given index(es)

```
const myPets=['Dog','Cat','Hamster'];  
myPets.slice(1);//['Cat','Hamster']  
myPets.slice(1,2);//['Cat']
```

4. splice()-split an array and/or insert new items

```
const myPets=['Dog','Cat','Hamster'];  
myPets.splice(1,2,'Lizard');//['Dog','Lizard']
```

5. concat()-concatenate one or more arrays

```
const myPets=['Dog','Cat','Hamster'];  
const myFlying Pets=['Bird'];  
const myWaterPets=['Fish'];  
const allPets=myPets.concat(myFlying Pets,myWaterPets);  
// allPets→['Dog','Cat','Hamster','Bird','Fish']
```

6. forEach()-loop over an array and access each item

```
const myPets=['Dog','Cat','Hamster'];  
myPets.forEach(pet console.log(pet));
```

7. filter()-create a new array based on a filter

```
const myPets=['Dog','Cat','Hamster'];  
const threeLetterPets=myPets.filter(petpet.length=3)  
// threeLetterPets→['Dog','Cat']
```

8. map()-loop over an array and run some operation on each item without mutating the original array

```
const myPets=['Dog','Cat','Hamster'];  
const lovedPets=myPets.map(pet'${pet}')
```

```
// LovedPets→['Dog','Cat','Hamster']
```

9. flat()-flatten an array to a single dimension

```

const values=[1,2,[7],3,[1,2],4]
console.log(values.flat())
//[1,2,7,3,1,2,4]

const new_array = values.flat([depth]);

10. reduce()-runacallback on each item and
reduce the array toasingle value
const values=[1,6,7,1,3,4];
const total=values.reduce((total,currentVal)total+currentNum);
// total→22

11. findIndex()-finds the index of an item
based onacondition
const people=[{name:'David'}, {name:'Peter'}, {name:'Alex'}]
const peterIndex=people.findIndex(person person.name='Peter');
// peterIndex→1

12. every()-check if every item meetsacondition
const values=[1,6,7,1,3,4];
console.log(values.every(val val<8))
// true

13. find()-find first value that meetsacondition
const values=[4,1,7,2,5,7,9,25];
const firstValueOverSeven=values.find(val⇒val>7);
// firstValueOverSeven→9

14. some()-check if some values meetacondition
const values=[1,6,7,1,3,4];
console.log(values.some(val⇒val>7))
// false

15. sort()-sorts an array
const values=[4,1,7,2,5];
const names=['David','Alexander','Peter'];
values.sort((a,b)a-b);//[1,2,4,5,7]
names.sort();//[ 'Alexander','David','Peter']

16)push,pop,shift,unshift

const month=['Jan','April','June',"Nov",'Dec'l;
const nunArr=[602,3820,2003,622,42,589,841;
//*-~*-~*-~*This Methods Returns New length of Array*-~*-~*-~*

```

```

console.log(month.push('October'));
// Expected Output:['Jan',"april","June",'Nov',"Doc","October1
console.log(month.unshift('Feb'));
    Expected Output'Feb','Jan','April,June","Now","Dec','October1
    *-*-*-*This Methods Returns Deleted Element*-*-*-*
console.log(numArr.pop());
// Expected Output:84
console.log(numArr.shift());
// Expected Output:602

17) sort
const months=['Jan','April','June','Nov','Dec'];
const numArray=[602,3020,1003,622,42,589,84];
console.log(months.sort());
// Expected output['April','Dec','Jan','June','Nov)
console.log(numArray.sort());
// Expected output[1983,3820,42,589,42,589,602,622,84]
//*-*-*-*For properly sort integer element*-*-*-*
console.log(numArray.sort((a,b)⇒a-b));
// Expected Output[42,84,589,602,622,1003,3020]

18)indexof ,lastindex of ,includes
const months=['Jan','April','June','Nov','Dec','April');
console.log(months.indexOf('April'));
// Expected output:1
console.log(months.lastIndexOf('April'));
7/Expected output:5
console.log(months.includes('June'));
// Expected output:true
19)find,find index,filter

const prices=[100,200,300,400,500,600,7001;
console.log(prices.find((price)price<400));
// Expected output:100
console.log(prices.findIndex((price)price>400));
// Expected output:4
console.log(prices.filter((price)price > 400));
// Expected output:[100,200,300,400]

20)slice,splice

```



```

const month=['Jan','April','June','Nov','Dec'];
// Update from index0to2step.
console.log(month.splice(0,2,'Feb','March'));
// Expected output:['Jan','April']
console.log(month.slice(1,3));
// Expected output:['March','June']
var arr = ["orange", "mango", "banana", "sugar", "tea"]; var removed =
arr.splice(2, 0, "water"); console.log("After adding 1: " + arr );
console.log("removed is: " + removed);

```

21)concat,string,join

```

const girls=['Cecilie','Lone'];
const boys=['Emil','Tobias','Linus'];
console.log(girls.concat(boys));
// Expected Output:['Cecilie','Lone','Emil','Tobias','Linus']
console.log(boys.toString());
// Expected Output:Emil,Tobias,Linus
console.log(boys.join(''));
// Expected Output:Emil Tobias*Linus

```

21)Fill

```

let arr = new Array(5).fill(true); // [true, true, true, true, true]

let arr = Array.from({length: 5}, (value, index) => index); // [0, 1, 2, 3, 4]

let arr = Array.from({length: 5}, (value, index) => true); // [true, true, true, true, true]

```

105)array of object filter based on conditions.

```

const array = [{ "Item": "A", "Quantity": 2 }, { "Item": "B", "Quantity": 7 }, { "Item": "C", "Quantity": 7 }, { "Item": "D", "Quantity": 7 }, { "Item": "E", "Quantity": 7 }, { "Item": "F", "Quantity": 1 }]; const filteredValues = array.filter((el) => el.Quantity === 7).map(elem => elem.Item);
console.log(filteredValues)

```

```
["B", "C", "D", "E"]
```

references link:

1) Number only Directive

<https://stackblitz.com/edit/angular-numbers-only-directive?file=app%2Fnumbers-only.directive.ts>

2)Regex pattern

<https://www.freakyjolly.com/angular-allow-only-numbers-or-alphanumeric-in-input-restrict-other-characters-using-keypress-event/>

3)Swiper

<https://swiperjs.com/demos>

4)file download progress

<https://stackblitz.com/edit/angular-image-download-with-progressbar-7ckjst?file=src%2Fapp%2Fapp.component.ts>

<https://stackblitz.com/edit/angular-upload-file-with-progress-bar-7cum2v?file=src%2Fapp%2Fapp.component.ts>

<https://stackblitz.com/edit/angular-file-upload-nakooi?file=app%2Fapp.component.ts>

<https://stackblitz.com/edit/angular-file-download-progress-mtv96?file=src%2Fapp%2Fapp.component.ts,src%2Fapp%2Fdownload.service.ts>

<https://nils-mehlhorn.de/posts/angular-file-download-progress>

Ref

<https://stackblitz.com/edit/angular-ty36de?file=src%2Fapp%2Fapp.component.ts,src%2Fapp%2Fapp.component.html,src%2Fapp%2Fapp.component.css>

Pagination

<https://stackblitz.com/edit/angular-gw2bd9?file=src%2Fapp%2Fpagination-customization.ts,src%2Fapp%2Fpagination-customization.html,src%2Fapp%2Fpagination-customization.module.ts>

1)Number only Directive

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<https://stackblitz.com/edit/angular-upload-file-with-progress-bar-7cum2v?file=src%2Fapp%2Fapp.component.ts>

<https://stackblitz.com/edit/angular-file-upload-nakooi?file=app%2Fapp.component.ts>

<https://stackblitz.com/edit/angular-file-download-progress-mtv96?file=src%2Fapp%2Fapp.component.ts,src%2Fapp%2Fdownload.service.ts>

<https://nils-mehlhorn.de/posts/angular-file-download-progress>

5)nvm install

<https://tecadmin.net/how-to-install-nvm-on-ubuntu-20-04/>

6)how to uninstall angular/update cli

<https://stackoverflow.com/questions/39566257/how-to-uninstall-upgrade-angular-cli>

