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COMPONENTS IN IONIC 2

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OVERVIEW

- Theming

- Components

- Fetching data

- Implementation

FILES FOR THEMING

- **app.core.scss** – Global styles

- **app.ios.scss** – iOS specific styles

- **app.md.scss** – Android specific styles (md = Material Design)

- **app.wp.scss** – Windows Phone specific styles

- **app.variables.scss** – Modifing shared variables

OVERRIDING IONIC VARIABLES

app/theme/app.variables.scss

```scss
$list-wp-background-color: gray;
$list-md-background-color: pink;
$list-ios-background-color: red;
$list-ios-activated-background-color: #3aff74;
$list-md-activated-background-color: #3aff74;
$alert-md-box-shadow: 0 16px 20px gray;
```

http://ionicframework.com/docs/v2/theming/overriding-ionic-variables/

THEMING COLORS

primary

secondary

danger

light

dark

your own!

SASS VARIABLES

```
$colors: (
    primary:      #387ef5,
    secondary:    #32db64,
    danger:       #f53d3d,
    light:        #f4f4f4,
    dark:         #222,
);
```

SASS VARIABLES

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$colors: (
    primary:    #387ef5,
    secondary:  #32db64,
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    dark:       #222,
    twitter:    #55acee

);
```

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);
```

```html
<ion-navbar twitter *navbar></ion-navbar>

<ion-content>
    <button twitter>Click here</button>
</ion-content>
```

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Not for any element

COMPONENTS

IONIC2 TEMPLATE COMPONENTS

- List

- Slides

- Modals

- Tabs

- Side menu

- Segment

- Grid

- Icons

- Forms

LIST

```
<ion-list>
    <ion-list-header>Friend list</ion-list-header>
    <ion-item-divider primary>A</ion-item-divider>
    <ion-item>
        <ion-avatar item-left>
            <img src="img/avatar-finn.png">
        </ion-avatar>
        <h2>Adam</h2>
        <h3>Don't Know What To Do!</h3>
        <p>I've had a pretty messed up day. If we just...</p>
    </ion-item>
</ion-list>
```

SLIDES

```html
<ion-slides pager>
  <ion-slide style="background-color: green">
    <h2>Slide 1</h2>
  </ion-slide>
  <ion-slide style="background-color: blue">
    <h2>Slide 2</h2>
  </ion-slide>
  <ion-slide style="background-color: red">
    <h2>Slide 3</h2>
  </ion-slide>
</ion-slides>
```

MODALS

- Any page can be modal

```
let myModal = Modal.create(MovieDetailPage);
this.nav.present(myModal, {id: id});
```

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```

Push for overlay views

TABS

```typescript
import {Page} from 'ionic-angular';
import {Page1} from '../page1/page1';
import {Page2} from '../page2/page2';
import {Page3} from '../page3/page3';


@Page({
  templateUrl: 'build/pages/tabs/tabs.html'
})
export class TabsPage {
  constructor() {
    this.tab1Root = Page1;
    this.tab2Root = Page2;
    this.tab3Root = Page3;
  }
}
```

```html
<ion-tabs>
    <ion-tab [root]="tab1Root" tabTitle="Tab 1" tabIcon="pulse"></ion-tab>
    <ion-tab [root]="tab2Root" tabTitle="Tab 2" tabIcon="chatbubbles">
    </ion-tab>
    <ion-tab [root]="tab3Root" tabTitle="Tab 3" tabIcon="cog"></ion-tab>
</ion-tabs>
```

SIDE MENU

```
@App({
  templateUrl: 'build/app.html',
  config: {}
})
```

```html
<ion-menu [content]="content">
    <ion-content>
        <ion-list>
            <button ion-item (click)="openPage(homePage)">
                Home
            </button>
        </ion-list>
    </ion-content>
</ion-menu>
<ion-nav id="nav" #content [root]="rootPage"></ion-nav>
```

SEGMENT

```html
<ion-segment [(ngModel)]="pet">
    <ion-segment-button value="kittens">Kittens</ion-segment-button>
    <ion-segment-button value="puppies">Puppies</ion-segment-button>
</ion-segment>

<div [ngSwitch]="pet">
    <ion-list *ngSwitchWhen="'puppies'">
        <ion-item>Oscar</ion-item>

        ...
    </ion-list>
    <ion-list *ngSwitchWhen="'kittens'">
        <ion-item>Luna</ion-item>

        ...
    </ion-list>
</div>
```

GRID

```
<ion-row>
    <ion-col width-25>Col 1</ion-col>
    <ion-col offset-25 width-50>
        Col 2
        <ion-row>Row</ion-row>
        <ion-row>Row</ion-row>
    </ion-col>
</ion-row>
```

ICONS

```html
<ion-icon name="heart"></ion-icon>
<ion-icon name="heart" isActive="false"></ion-icon>
```

ICONS

```html
<ion-icon name="heart"></ion-icon>
<ion-icon name="heart" isActive="false"></ion-icon>
```

isActive="true"   **isActive**="false"

FETCHING DATA

FETCHING DATA

Provider

```
import {Injectable} from 'angular2/core';
import {Http} from 'angular2/http';
import 'rxjs/add/operator/map';

@Injectable()
export class MoviesProvider {
  static get parameters() {return [[Http]]}
  constructor(http) {
    this.http = http;
    this.data = null;
  }
  load() {
    if (this.data) return Promise.resolve(this.data);
    return new Promise(resolve => {
      this.http.get('http://api.themoviedb.org/3/movie/popular?
api_key=4aa883f95999ec813b8bfaf319f3972b')
        .map(res => res.json())
        .subscribe(data => {
          this.data = data;
          resolve(this.data);
        });
    });
  }
}
```

FETCHING DATA

Page

```
import {Page} from 'ionic-angular';
import {MoviesProvider} from '../../providers/movies-provider/movies-provider';

@Page({
    templateUrl: 'build/pages/movies/movies.html',
    providers: [MoviesProvider],
})
export class MoviesPage {
    static get parameters() {
        return [[MoviesProvider]];
    }

    constructor(moviesProvider) {
        this.movies = [];
        var p = mp.load();
        p.then((data) => {
            this.movies = data.results;
        });
    }
}
```

IONIC NATIVE

- Common interface for Cordova plugins

- Similar with ngCordova in Ionic 1

- Can use same syntax for using native and non-native features – E. g.: Alerts

WHAT WE WILL DO

- Add Camera plugin

- Choose photo from gallery

- Take a picture

- Use warholized filter

START PROJECT

```
$ ionic start image-warholize sidemenu --v2
```

GENERATE PAGES

- Generate **ChooseAction page**

- Generate **Warholize**

- Set **ChooseActionPage** as **root page** (app/app.js)

INSTALL CAMAN JS

```
$ npm i --save https://github.com/danielrys/CamanJS.git
```

DOWNLOAD WARHOLIZER.JS

- http://bit.ly/1TuGhU5

- Save as **app/pages/warholize/warholizer.js**

- Import **WarholizePage**

```
import {Warholizer} from './warholizer';
```

PREPARE SOME IMAGE

- Save some image to **www/img/build/demo.jpg**

INSTALL CAMERA

```
$ ionic plugin add cordova-plugin-camera
```

IONIC NATIVE + CAMERA

```javascript
import {Camera} from 'ionic-native';

Camera.getPicture(options).then((imageData) => {
    // imageData is either a base64 encoded string or a file URI
    // If it's base64:
    let base64Image = "data:image/jpeg;base64," + imageData;
}, (err) => {
});
```

CHOOSE ACTION

app/pages/choose-action/choose-action.html

```html
<ion-navbar *navbar>
   <button menuToggle>
      <ion-icon name="menu"></ion-icon>
   </button>
   <ion-title>New Effect</ion-title>
</ion-navbar>

<ion-content padding class="choose-action">
   <button block (click)="getPicture('device')">Choose from device</button>
   <button block (click)="getPicture('camera')">Take a picture</button>
</ion-content>
```

CHOOSE ACTION

app/pages/choose-action/choose-action.js

```javascript
import {Page, NavController} from 'ionic-angular';
import {Camera} from 'ionic-native';
import {WarholizePage} from '../warholize/warholize';

@Page({
    templateUrl: 'build/pages/choose-action/choose-action.html',
})
export class ChooseActionPage {
    static get parameters() {
        return [[NavController]];
    }
    constructor(nav) {
        this.nav = nav;
    }
    /**
     * @description Starts the device's camera
     * @param {String} String specifying image source (device storage / camera)
     */
    getPicture(source) {
        // TODO
    }
}
```

CHOOSE ACTION

app/pages/choose-action/choose-action.js

```javascript
getPicture(source) {
    var options = {
        destinationType: 0, //base64
        quality: 50,
        targetWidth: 500
    };
    if(source === 'device'){
        options.sourceType = 0; //photo library
    }
    Camera.getPicture(options).then((imageData) => {
        this.nav.push(WarholizePage, {imageData: imageData});
    }, (err) => {
        console.log('camera error');
        var demo = document.createElement("canvas");
        demo.width = 500;
        demo.height = 500;
        var img = new Image;
        img.src = "../../build/img/demo.jpg";
        img.onload = () => {
            demo.getContext("2d").drawImage(img, 0, 0, 500, 500);
            this.nav.push(WarholizePage, {imageData: demo.toDataURL("image/jpeg")});
        }
    });
}
```

WARHOLIZE

app/pages/warholize/warholize.html

```html
<ion-navbar *navbar>
    <button menuToggle>
        <ion-icon name="menu"></ion-icon>
    </button>
    <ion-title>Warholize</ion-title>
</ion-navbar>

<ion-content padding class="getting-started">
    <img [src]="imgSrc" alt="" id="source-image">
    <div id="previews"></div>
    <button block (click)="applyEffect()" *ngIf="!generated">
        Upravit obrazek
    </button>
</ion-content>
```

WARHOLIZE

app/pages/warholize/warholize.js

```javascript
import {Page, NavController, NavParams} from 'ionic-angular';
import {Warholizer} from './warholizer';
const BASE64_PREFIX = "data:image/jpeg;base64,";


@Page({templateUrl: 'build/pages/warholize/warholize.html' })
export class WarholizePage {
    static get parameters(){ return [[NavController], [NavParams]];    }


    constructor(nav, navParams){
      this.generated = false;
      var imageData = navParams.get('imageData');
      if(imageData){
          this.useNewImageAsSrc(imageData);
      }
    }
  applyEffect(){
      // TODO
  }
  useNewImageAsSrc(imageData){
      if(~imageData.indexOf(BASE64_PREFIX))
          this.imgSrc = imageData;
      else
          this.imgSrc = BASE64_PREFIX + imageData;
  }
}
```

WARHOLIZE

app/pages/warholize/warholize.js

```javascript
applyEffect(){
    if(this.generated) return;
    var wrh = new Warholizer({
        previewsElemId: 'previews',
        sourceImgId: 'source-image',
        resultWrapperNameBase: 'result-wrapper-',
        resultElementNameBase: 'result-'
    });
    wrh.generateClones();
    this.generated = true;
}
```

WARHOLIZE

app/pages/warholize/warholize.scss

```scss
#previews {
  canvas {
    width: 100%;
  }
}
```

SHARE PICTURE

app/pages/warholize/warholize.js

```javascript
applyEffect(){
    var wrh = new Warholizer({
        previewsElemId: "previews",
        sourceImgId: "source-image",
        resultWrapperNameBase: "result-wrapper-",
        resultElementNameBase: "result-",
        cloneClickedHandler: function(target){ // Callback
            SocialSharing.share(
                "Check this photo!", // Message
                "Hello", // Title
                target.toDataURL("image/jpeg") // Picture
            );
        }
    })
    wrh.generateClones();
}
```

COMPLETED APP

https://github.com/jvaclavik/image-warholizer/releases/tag/1.0

QUESTIONS?

WWW.USERTECHNOLOGIES.COM