

# /Kelly's Colleagues

```
# Cao Qingtian
# Huang Jingfang
# Leon Gurtler
# Lin Jacky
# Kelly Wong
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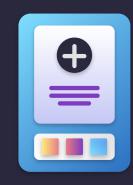








# < How to make more money? >













< Data & Information is the oil of the 21st century >







# /Problems with collecting the right data & gaining good insights

- > Costly.
- > Time intensive.
- > Too slow.







#### $\equiv$

### /The Holy Grail(s) of Data Collection & Analysis

- Cheap
- In real time
- Actionable insights

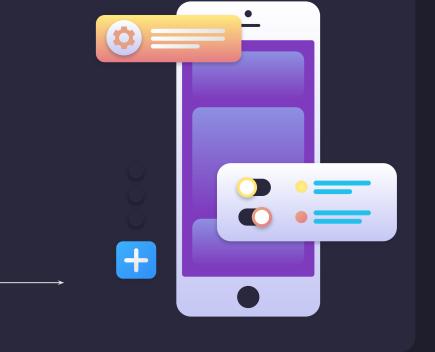








/02 /DEMO



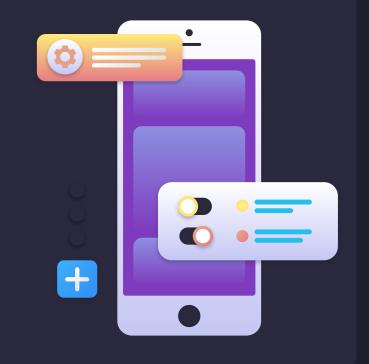
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# **/03 /SOFTWARE ENGINEERING PRACTICES**

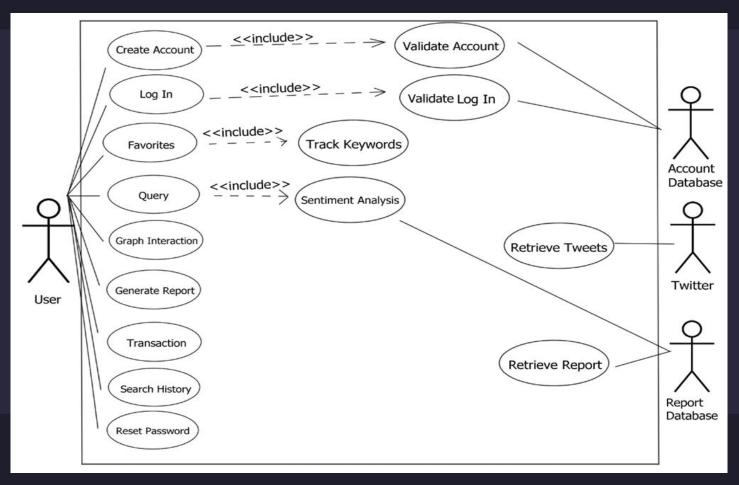


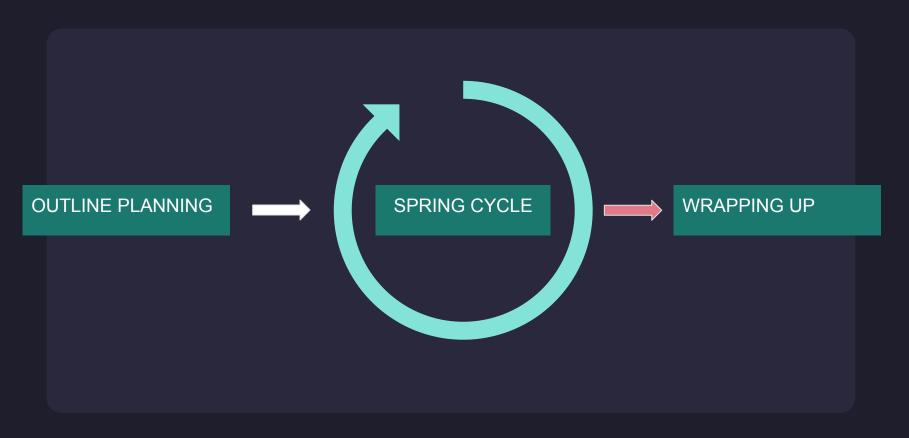






# **USE CASE DIAGRAM**







# **DESIGN PRINCIPLES**



/Single-Responsibility Principle



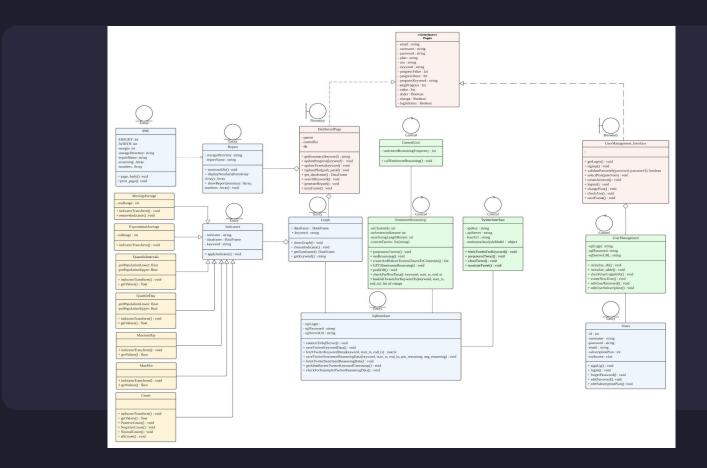
**/Open-Closed Principle** 







### **CLASS DIAGRAM**





#### **Single-Responsibility Principle**









#### UserManagement\_Interface

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- + getLogin() : void
- + signup() : void
- + validatePassword(password, password1): boolean
- + selectPlan(planNum) : void
- + createAccount() : void
- + logout() : void
- + changePlan() : void + checkAns() : void
- + nextFrame() : void



#### UserManagement

- -sqlLogin: string
- -sqlPassword: string -sqlServerURL: string
- + initialize\_db() : void
- + initialize\_table() : void
- + checkUserLoginInfo(): void
- + createNewUser() : void + editUserPassword() : void
- + editUserSubscription() : void



#### Users

-id : int -username : string

-password : string

-email : string -subscriptionPlan : int

-nickname : char

- + signUp() : void
- + logIn(): void
- + forgetPassword() : void
- + editPassword(): void + editSubscriptionPlan(): void





#### Moving Average - maRange : int + indicatorTransform() : void + removeIndicator() :void **Exponential Average** - eaRange : int indicator : string dataframe : DataFrame keyword : string + indicatorTransform() : void + applyIndicator() : void QuantileIntervals $\triangle \triangle \triangle \triangle \triangle$ -pctPopulationLower: float -pctPopulationUpper: float + indicatorTransform() : void + getValues(): float QuantileDay -pctPopulationLower: float -pctPopulationUpper: float + indicatorTransform() : void + getValues() : float MaxminDay + indicatorTransform() : void + getValues(): float MaxMin + indicatorTransform() : void + getValues(): float Count + indicatorTransform() : void + getValues() : float + PositiveCount(): void + NegativeCount(): void + NeutralCount(): void + allCount() : void

#### **Open-Closed Principle**







### FUNCTIONAL VS NON FUNCTIONAL

/Able to fetch tweets
/Able to run sentiment
analysis
/Generate summary
/Generate report
/Log In
/Sign In
/Choose plans

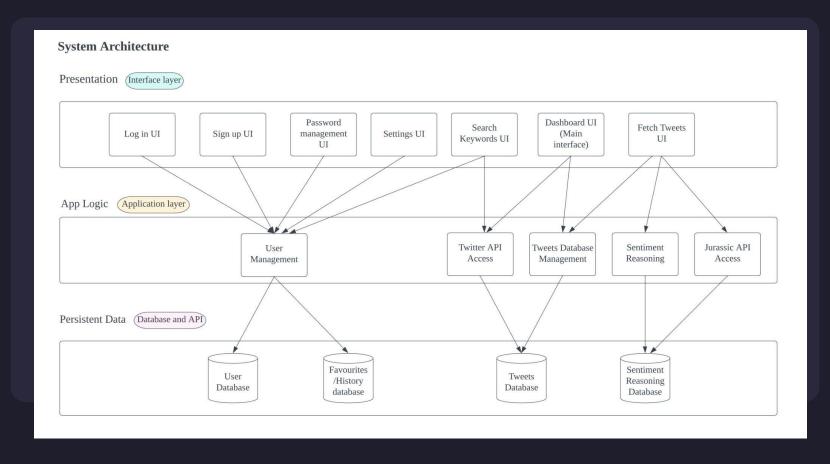
/Security /Maintainability







# **Design Pattern - Layered architecture**





# **Design Pattern - Data Centered**



/Database Architecture



/Prevent SQL Injection Attack



/Centralized server









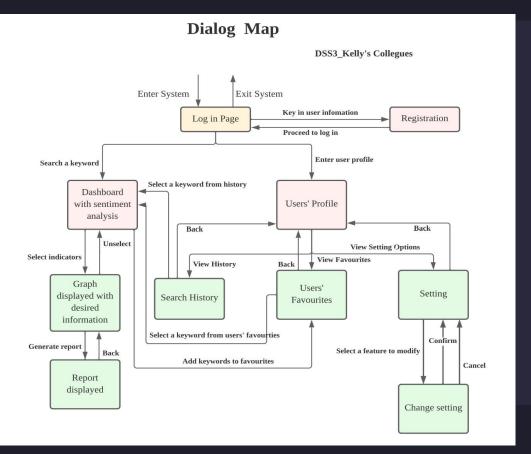
# Design Pattern - Observer Pattern





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# **Dialog Map**



# **Testing**

#### **Choose Indicators**

Scenario	Expected F
The user press on Indicator button to choose the indicator to be shown on plot	The corres generated the main

#### Add to Favorite

Scenario	Expected F	User did not fill in a required field	ll the
The user choose one keyword to add into their favorite keywords.	The keywo will be added to the users_info database		will b

#### **Generate Report**

Scenario	Expected Result	Actu
The user chooses to generate a report based on the current selected indicators.	A pdf report will be generated and downloaded	A pd and

#### Sign Up

User enters different

Scenario	Expected Result	Actual Result
User does not have an existing account and sign u	Sign up successfully User information is stored	Sign up successfully User information is stored
with correct information	Edit Password	

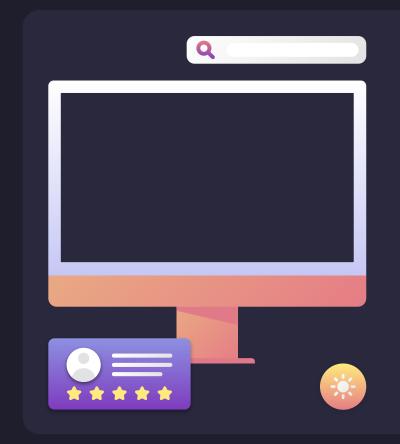
#### **Edit Password**

- 1	Oser enters different				
	passwords for password a	Scenario	Expected Result	Actual Result	
SS passitota ilota	User edit password with correct information	Edit password successfully.	Edit password successfully.		
	User already has an existi account but try to sign up the same username	User key in a wrong password	Please check your password.	Please check your password.	
	User did not fill in all the required field	User did not fill in all the required field	Please fill in all the required information!	Please fill in all the required information!	

#### Forget Password

Scenario	Expected Result	Actual Result	
User key in correct verification information(nickname)	Password is verified successfully.	Password is verified successfully.	
User key in the incorrect verification information(nickname)	Please check your username and verification.	Please check your username and verification.	
User did not fill in all the required field	Please fill in all the required information!	Please fill in all the required information!	





# /Application in Social-Ai









/THANKS!







