

mainview

### Application

- + API\_KEY\_FILE\_NAME:String
- + myApiKey:String
- + rootUrl:String
- + main(String[] args):void

### NearExpiryContractFrame

+ contracts:List<Contract>

+ show():void

+ NearExpiryContractFrame(List<Contract> contracts)

#### NotificationFrame

- message:String
- + NotificationFrame(String message) + show():void

#### **AuthenticationView**

- + panel:Jpanel
- + userLabel:JLabel
- + userText:JTextField
- + passwordLabel:JLabel
- + passwordText:JPasswordField
- + loginButton:JButton
- · PREFERRED\_SIZE:Dimension
- MAX INPUT LENGTH:int
- + AuthenticationView(Display display)
- placeComponents():void
- + getUserName():String
- + getPassword():String

# <<interface>> NavigationPane

+ showNavigationPane(Display display, JPanel parent, JButton[] buttons):void

## <<interface>> Observer

+ update(EventType e):void

#### ContractDurationFrame

- three:JRadioButtonMenuItem
- six:JRadioButtonMenuItem
- twelve:JRadioButtonMenuItem
- twtvfour:JRadioButtonMenuItem
- longer:JRadioButtonMenuItem
- longerduration:JTextField
- duration:ButtonGroup
- selectedDuration:int
- + ContractDurationFrame()
- + show():void
- reload():void
- + getselectedduration():int
- isNumeric(String s):Boolean
- + getDuration():int

## <<interface>> MouseClickListener

- + mousePressed(MouseEvent e):void
- + mouseReleased(MouseEvent e):void
- + mouseEntered(MouseEvent e):void
- + mouseExited(MouseEvent e) :void

#### RemovablePanel

- + RemovablePanel()
- + RemovablePanel(LayoutManager layout)
- + onRemoved():void
- + onAttached():void

#### Controller

#### <<interface>> MessageView

+ getLogArea(List<String> messageLog)
+ getChatBox()

#### Utils

- mapper:ObjectMapper
- + format:SimpleDateFormat
- + SUCCESS\_CONTRACT\_CREATION:NotificationFrame
- + SUCCESS\_BID\_CREATION:NotificationFrame
- + INSUFFICIENT\_COMPETENCY:NotificationFrame
- $+ \ SUCCESS\_MATCH\_REQUEST: Notification Frame$
- + PLEASE\_FILL\_IN:NotificationFrame + INVALID\_FIELDS:NotificationFrame
- + REACHED\_CONTRACT\_LIMIT:NotificationFrame
- + CONTRACT\_SIGNED:NotificationFrame
- + OTHER PARTY\_PENDING:NotificationFrame
- + INVALID\_USER:NotificationFrame
- + CANNOT\_CREATE\_BID:NotificationFrame
- $+ \ {\sf CANNOT\_MODIFY\_BID}: Notification Frame$
- + formatDate(String datetime):Date

#### Display

- frame:JFrame
- + FRAME\_WIDTH:int
- + FRAME\_HEIGHT:int
- + Display()
- + createPanel(JComponent panel):void
- + setVisible():void
- + removePanel(JComponent panel):void
- + closeWindow():void

### HomeView

- user:User
- + panel:Jpanel
- + studentButton:JButton
- + tutorButton:JButton
- + logout:JButton
- + HomeView(Display display, User user)
- placeComponents():void

## <<abstract>> View

- display:Display
- homeButton:JButton
- + activePanel:RemovablePanel
- + View(Display display)
- + display():void
- createPanel(LayoutManager layout:JPanel
- createPanel():JPanel
- placeComponents():void
- setSwitchPanelListener(RemovablePanel panel, Component comp, View newView):void
- + mouseClicked(MouseEvent e):void
- setSwitchPanelListener(JPanel main, Component comp,

RemovablePanel newPanel):void

- + mouseClicked(MouseEvent e):void
- addMouseListener(JComponent component,

MouseClickListener listener):void

Bid <<Enum>> BidResponse BidType - id:String - bidderId:String type:BidType Open - bidderName:String initiator:User Close rate:String - dateCreated:Date duration:String Monitor BidAddInfo - subject:Subject Contract timeDate:String closeddown:boolean sessionsPerWeek:String - addInfo:BidAddInfo ContractAddInfo - additionalInfo:String + WEEK IN MILLIS:int hasFreeLesson:boolean + HALF HOUR IN MILLIS:int + BidResponse(String bidderId, + MIN IN MILLIS:int String bidderName, + COMPETENCY PADDING:int String rate, + type: Enum<BidType> String rateType, + Bid (String id, BidType type, User initiator, Date String duration, dateCreated, Date dateClosedDown, Subject subject) String timeDate, Message Subject String sessionsPerWeek, + Bid(JsonNode node) EventType String additionalInfo, <<Enum>> + Bid(JsonNode node, User user) boolean hasFreeLesson) EventType + getId():String + toJson():String BID CREATED + getType():BidType + toString():String BID CLOSEDDOWN + getInitiatorId():String + getBidderId():String BID NEWRESPONSE + getDateCreated():String + getRate:String <<interface>> BID\_FETCH\_NEWRESPONSE\_FROM\_API + getSubject():Subject Model + getDuration:String MESSAGE PATCH + getInitiatorName():String + getTimeDate:String ContractCessationInfo + get(String url):HttpResponse<String> CONTRACT\_CREATED + toString():String + getSessionsPerWeek:String + getAll(String - secondPartvId:String CONTRACT SIGN - isExpired():boolean + getAddInfo:String extension):List<ObjectNode> CONTRACT\_ONE\_PARTY\_SIGN duration:int + getAll():List<Bid> + hasFreeLesson:String + get(String extension, String CONTRACT\_EXPIRE - competency:String + screenClosedBid(List<Bid> bids):List<Bid> <<abstract>> id):ObjectNode CONTRACT\_TERMINATE User - hourPerLesson:String + toJson():String Observable + post(String url, String json):void - sessionsPerWeek:String CONTRACT PATCH + postBid(String type, String initiatorId, String subjectId, + delete(String url, String ison):void rate:String CONTRACT\_ONE\_MONTH\_BEFORE\_EXPIRE BidAddInfo addInfo):void + observers: Map<EventType, + patch(String url, String json):void CONTRACT DELETED + patchBid():void List<Observer>> + ContractCessationInfo(String CONTRACT\_RENEWED + updateBid():void secondPartyId. CONTRACT\_CESSATIONINFO\_UPDATED + closeDownBid():void int duration. + inform(EventType e):void MONITOR CHANGED + getMessages():List<Message> String competency, + subscribe(EventType e, Observer o):void USER SUBSCRIBE NEW BID + getResponse():List<BidResponse> String hourPerLesson, + unsubscribe(EventType e, Observer + addResponse(BidResponse r):void MessageAddInfo String sessionsPerWeek, + checkEligibility(User tutor):boolean String rate) MatchRequest + emptySubscription(EventType e):void + getRequestCompetency():String + ContractCessationInfo(JsonNode node) + getRequestHourPerLesson():String + toJson():String + getRequestRate():String + getRequestSessionPerWeek():String createContractAddInfo():ContractAddInfo + getSecondPartyId():String

ContractReuse	StudentAllBids	ReviseContractTerm	CreateSameTutorContract	
- contracts:List <contract> - contractList: JList<contract></contract></contract>				
+ ContractReuse(List <contract> contracts) + placeComponents():void</contract>				
+ update(EventType e):void				
+ setReuseContractListener(MouseClickListener istener):void				
+ getSelectedContract():Contract				
				Charles th III Control to
				StudentAllContracts
StudentResponseView	StudentMessageView	StudentView	CreateRequest	
		- user:User		
		+ createMatchRequest:JButton + viewAllBids:JButton		
		+ viewContracts:JButton		
		+ reuseContracts:JButton + main: RemovablePanel		
		Hail. Nemovabler allel		
		+ StudentView(Display display,		
		User user) - placeComponents():void		
		pisso somponomon		

(tuton iow			
tutorview			
TutorMonitorView	TutorResponseView	CreateBid	
			TutorAllContracts
TutorView	TutorAllBids	TutorMessageView	