**+Contributors:**

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**1.Overall:** This document contains additional ideas for the Top Navigation Bar’s dropdown menu tab on the Main Page that I was thinking about on 04/07/2025.

**2.Ideas:**

**a)Tools:**

**a.1)Dropdown Menu Buttons Tab:**

**a.1.1)Algorithm – Logic:**

**a.1.2)Technologies:**

**+About the sliding animation effect on the top navigation bar’s dropdown menu tab**:

On 04/06/2025 I adjusted the content for the whole Top Navigation Bar and the Dropdown Menu Tab so that I used only VBox (HBox[for Top Navigation Bar], HBox[for Dropdown Menu Tab]) because I realized that I didn’t need StackPane and AnchorPane to help the Dropdown Menu Tab have slide down animation effect.

\*I noticed that everything worked fine except that the Dropdown Menu Tab just appear below the Top Navigation Bar immediately after I clicked Menu button. Luckily, if I clicked the Menu button other times, the Dropdown Menu Tab actually slided up and down like expected.

=>I Figured out the solution for this issue on 04/07/2025 10:44:AM and wrote a document about it on my computer.

In general, I’m just going to put the design for each containers of the Top Navigation Bar and Dropdown Menu Button Tab from my SceneBuilder app and the code for the **TopNavigationBarController.java**, and **TopNavigationBarFXML.fxml** here

A screenshot of a computer

AI-generated content may be incorrect.

**package** application.MainPageScene.TopNavigationBar;

**import** java.io.IOException;

**import** javafx.fxml.FXML;

**import** javafx.scene.layout.VBox;

**import** javafx.scene.layout.BorderPane;

**import** javafx.scene.layout.HBox;

**import** javafx.scene.control.ScrollPane;

**import** javafx.scene.control.Label;

**import** javafx.scene.control.Button;

**import** javafx.scene.image.ImageView;

**import** javafx.geometry.Insets;

**import** javafx.animation.KeyFrame;

**import** javafx.animation.KeyValue;

**import** javafx.animation.Timeline;

**import** javafx.util.Duration;

**public** **class** TopNavigationBarController{

**@**FXML

VBox topNavigationBar1\_VBox1;

**@**FXML

BorderPane topNavigationBar1\_BorderPane1;

**@**FXML

HBox topNavigationBar1\_BorderPane1\_Left\_HBox1;

**@**FXML

Button topNavigationBar1\_BorderPane1\_Left\_HBox1\_MenuButt;

**@**FXML

ImageView topNavigationBar1\_BorderPane1\_Center\_Logo;

**@**FXML

HBox topNavigationBar1\_BorderPane1\_Right\_HBox1;

**@**FXML

Button topNavigationBar1\_BorderPane1\_Right\_HBox1\_SignIn\_Butt;

**@**FXML

Button topNavigationBar1\_BorderPane1\_Right\_HBox1\_Help\_Butt;

**@**FXML

ScrollPane topNavigationBar1\_ScrollPane1;

**@**FXML

HBox topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab;

**@**FXML

HBox topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab\_HBox1;

**@**FXML

Button topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab\_HBox1\_Buy\_Butt;

**@**FXML

Button topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab\_HBox1\_Rent\_Butt;

**@**FXML

Button topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab\_HBox1\_Sell\_Butt;

**@**FXML

Button topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab\_HBox1\_Loan\_Butt;

**@**FXML

Button topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab\_HBox1\_Agents\_Butt;

**@**FXML

Button topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab\_HBox1\_News\_Butt;

**@**FXML

HBox topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab\_HBox2;

**@**FXML

Button topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab\_HBox2\_Close\_Butt;

**public** **void** **initialize**() {

topNavigationBar1\_VBox1.getChildren().remove(topNavigationBar1\_ScrollPane1);

}

**@**FXML

**public** **void** **show\_topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab**() **throws** IOException{

**if**(!topNavigationBar1\_VBox1.getChildren().contains(topNavigationBar1\_ScrollPane1)) {

// If the tab is not already in the VBox, add it to the VBox

topNavigationBar1\_VBox1.getChildren().add(topNavigationBar1\_ScrollPane1);

// Configure scroll behavior

topNavigationBar1\_ScrollPane1.setVbarPolicy(ScrollPane.ScrollBarPolicy.ALWAYS);

//animation effect that slide the tab down by expanding the height of the ScrollPane

Timeline **timeline** = **new** Timeline();

KeyValue **keyValue** = **new** KeyValue(topNavigationBar1\_ScrollPane1.prefHeightProperty(), **80**);

KeyFrame **keyFrame** = **new** KeyFrame(Duration.seconds(**0.4**), keyValue);

timeline.getKeyFrames().add(keyFrame);

timeline.play();

}**else** {

//animation effect that slide the tab up by shrinking the height of the ScrollPane

Timeline **timeline2** = **new** Timeline();

KeyValue **keyValue2** = **new** KeyValue(topNavigationBar1\_ScrollPane1.prefHeightProperty(), **0**);

KeyFrame **keyFrame2** = **new** KeyFrame(Duration.seconds(**0.4**), keyValue2);

timeline2.getKeyFrames().add(keyFrame2);

timeline2.play();

// Remove the tab from the VBox after the animation is finished

timeline2.setOnFinished(**event** -> {

topNavigationBar1\_VBox1.getChildren().remove(topNavigationBar1\_ScrollPane1);

});

}

}

**@**FXML

**public** **void** **close\_topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab**() **throws** IOException{

//animation effect that slide the tab up by shrinking the height of the ScrollPane

Timeline **timeline** = **new** Timeline();

KeyValue **keyValue** = **new** KeyValue(topNavigationBar1\_ScrollPane1.prefHeightProperty(), **0**);

KeyFrame **keyFrame** = **new** KeyFrame(Duration.seconds(**0.4**), keyValue);

timeline.getKeyFrames().add(keyFrame);

timeline.play();

// Remove the tab from the VBox after the animation is finished

timeline.setOnFinished(**event** -> {

topNavigationBar1\_VBox1.getChildren().remove(topNavigationBar1\_ScrollPane1);

});

}

}

**Syntax inside TopNavigationBarFXML.fxml**

<?xml version=*"1.0"* encoding=*"UTF-8"*?>

<?import javafx.geometry.Insets?>

<?import javafx.scene.Cursor?>

<?import javafx.scene.control.Button?>

<?import javafx.scene.control.Label?>

<?import javafx.scene.control.ScrollPane?>

<?import javafx.scene.effect.DropShadow?>

<?import javafx.scene.image.Image?>

<?import javafx.scene.image.ImageView?>

<?import javafx.scene.layout.BorderPane?>

<?import javafx.scene.layout.HBox?>

<?import javafx.scene.layout.VBox?>

<?import javafx.scene.paint.Color?>

<?import javafx.scene.text.Font?>

<VBox id=*"topNavigationBar1\_VBox1"* fx:id=*"topNavigationBar1\_VBox1"* xmlns=*"http://javafx.com/javafx/23.0.1"* xmlns:fx=*"http://javafx.com/fxml/1"* fx:controller=*"application.MainPageScene.TopNavigationBar.TopNavigationBarController"*>

<children>

<BorderPane id=*"topNavigationBar1\_BorderPane1"* fx:id=*"topNavigationBar1\_BorderPane1"* prefWidth=*"800.0"* style=*"-fx-background-color: white;"*>

<left>

<HBox id=*"topNavigationBar1\_BorderPane1\_Left\_HBox1"* fx:id=*"topNavigationBar1\_BorderPane1\_Left\_HBox1"* prefHeight=*"64.0"* prefWidth=*"246.0"* style=*"-fx-background-color: white;"* BorderPane.alignment=*"CENTER"*>

<padding>

<Insets bottom=*"10.0"* left=*"10.0"* right=*"10.0"* top=*"10.0"* />

</padding>

<children>

<Button id=*"topNavigationBar1\_BorderPane1\_Left\_HBox1\_MenuButt"* fx:id=*"topNavigationBar1\_BorderPane1\_Left\_HBox1\_MenuButt"* mnemonicParsing=*"false"* onAction=*"#show\_topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab"* style=*"-fx-background-color: white;"*>

<graphic>

<HBox id=*"topNav1\_leftContainer\_dropdownMenu\_butt\_HBox"* fx:id=*"topNav1\_leftContainer\_dropdownMenu\_butt\_HBox"* prefHeight=*"26.0"* prefWidth=*"125.0"* style=*"-fx-background-color: white;"*>

<children>

<ImageView fitHeight=*"41.0"* fitWidth=*"32.0"* pickOnBounds=*"true"* preserveRatio=*"true"*>

<image>

<Image url=*"@Images/Menu.png"* />

</image>

</ImageView>

<Label text=*"Menu"*>

<font>

<Font size=*"20.0"* />

</font>

<HBox.margin>

<Insets left=*"5.0"* right=*"5.0"* />

</HBox.margin>

</Label>

<ImageView fitHeight=*"22.0"* fitWidth=*"25.0"* pickOnBounds=*"true"* preserveRatio=*"true"*>

<image>

<Image url=*"@Images/downArrow.png"* />

</image>

<HBox.margin>

<Insets top=*"5.0"* />

</HBox.margin>

</ImageView>

</children>

</HBox>

</graphic>

<effect>

<DropShadow blurType=*"ONE\_PASS\_BOX"*>

<color>

<Color opacity=*"0.10030395537614822"* />

</color>

</DropShadow>

</effect>

<cursor>

<Cursor fx:constant=*"HAND"* />

</cursor>

</Button>

</children>

</HBox>

</left>

<center>

<ImageView id=*"topNavigationBar1\_BorderPane1\_Center\_Logo"* fx:id=*"topNavigationBar1\_BorderPane1\_Center\_Logo"* fitHeight=*"48.0"* fitWidth=*"64.0"* pickOnBounds=*"true"* preserveRatio=*"true"* BorderPane.alignment=*"CENTER"*>

<image>

<Image url=*"@../CompanyLogo/RQT\_Company\_Logo.png"* />

</image>

</ImageView>

</center>

<right>

<HBox id=*"topNavigationBar1\_BorderPane1\_Right\_HBox1"* fx:id=*"topNavigationBar1\_BorderPane1\_Right\_HBox1"* alignment=*"CENTER\_RIGHT"* prefHeight=*"66.0"* prefWidth=*"264.0"* BorderPane.alignment=*"CENTER"*>

<children>

<Button id=*"topNavigationBar1\_BorderPane1\_Right\_HBox1\_SignIn\_Butt"* fx:id=*"topNavigationBar1\_BorderPane1\_Right\_HBox1\_SignIn\_Butt"* mnemonicParsing=*"false"* prefWidth=*"136.0"* style=*"-fx-background-color: white;"*>

<graphic>

<HBox prefHeight=*"35.0"* prefWidth=*"110.0"* style=*"-fx-background-color: white;"*>

<children>

<ImageView fitHeight=*"35.0"* fitWidth=*"42.0"* pickOnBounds=*"true"* preserveRatio=*"true"*>

<image>

<Image url=*"@Images/logIn.png"* />

</image>

<HBox.margin>

<Insets right=*"5.0"* />

</HBox.margin>

</ImageView>

<Label text=*"Sign-In"*>

<font>

<Font size=*"20.0"* />

</font>

</Label>

</children>

</HBox>

</graphic>

<effect>

<DropShadow blurType=*"ONE\_PASS\_BOX"*>

<color>

<Color opacity=*"0.09118536114692688"* />

</color>

</DropShadow>

</effect>

<cursor>

<Cursor fx:constant=*"HAND"* />

</cursor>

</Button>

<Button id=*"topNavigationBar1\_BorderPane1\_Right\_HBox1\_Help\_Butt"* fx:id=*"topNavigationBar1\_BorderPane1\_Right\_HBox1\_Help\_Butt"* mnemonicParsing=*"false"* prefHeight=*"46.0"* prefWidth=*"108.0"* style=*"-fx-background-color: white;"*>

<graphic>

<HBox prefHeight=*"38.0"* prefWidth=*"103.0"* style=*"-fx-background-color: white;"*>

<children>

<ImageView fitHeight=*"44.0"* fitWidth=*"37.0"* pickOnBounds=*"true"* preserveRatio=*"true"*>

<image>

<Image url=*"@Images/helpDeskIcon.png"* />

</image>

<HBox.margin>

<Insets right=*"5.0"* />

</HBox.margin>

</ImageView>

<Label text=*"Help"*>

<font>

<Font size=*"20.0"* />

</font>

</Label>

</children>

</HBox>

</graphic>

<effect>

<DropShadow blurType=*"ONE\_PASS\_BOX"*>

<color>

<Color opacity=*"0.09726439416408539"* />

</color>

</DropShadow>

</effect>

<cursor>

<Cursor fx:constant=*"HAND"* />

</cursor>

</Button>

</children>

<BorderPane.margin>

<Insets />

</BorderPane.margin>

<padding>

<Insets bottom=*"10.0"* left=*"10.0"* right=*"10.0"* top=*"10.0"* />

</padding>

</HBox>

</right>

</BorderPane>

<ScrollPane id=*"topNavigationBar1\_ScrollPane1"* fx:id=*"topNavigationBar1\_ScrollPane1"* prefHeight=*"0.0"* prefWidth=*"803.0"*>

<content>

<HBox id=*"topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab"* fx:id=*"topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab"* prefHeight=*"6.0"* prefWidth=*"800.0"* style=*"-fx-background-color: transparent;"*>

<children>

<HBox id=*"topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab\_HBox1"* fx:id=*"topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab\_HBox1"* alignment=*"CENTER"* prefWidth=*"767.0"* style=*"-fx-background-color: white;"*>

<children>

<Button id=*"topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab\_HBox1\_Buy\_Butt"* fx:id=*"topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab\_HBox1\_Buy\_Butt"* mnemonicParsing=*"false"* style=*"-fx-background-color: white;"*>

<graphic>

<ImageView fitHeight=*"44.0"* fitWidth=*"200.0"* pickOnBounds=*"true"* preserveRatio=*"true"*>

<image>

<Image url=*"@Images/buyHouse.png"* />

</image>

</ImageView>

</graphic>

<cursor>

<Cursor fx:constant=*"HAND"* />

</cursor>

</Button>

<Button id=*"topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab\_HBox1\_Rent\_Butt"* fx:id=*"topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab\_HBox1\_Rent\_Butt"* layoutX=*"20.0"* layoutY=*"20.0"* mnemonicParsing=*"false"* style=*"-fx-background-color: white;"*>

<graphic>

<ImageView fitHeight=*"44.0"* fitWidth=*"200.0"* pickOnBounds=*"true"* preserveRatio=*"true"*>

<image>

<Image url=*"@Images/rentHouse.png"* />

</image>

</ImageView>

</graphic>

<cursor>

<Cursor fx:constant=*"HAND"* />

</cursor>

</Button>

<Button id=*"topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab\_HBox1\_Sell\_Butt"* fx:id=*"topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab\_HBox1\_Sell\_Butt"* layoutX=*"80.0"* layoutY=*"20.0"* mnemonicParsing=*"false"* style=*"-fx-background-color: white;"*>

<graphic>

<ImageView fitHeight=*"55.0"* fitWidth=*"44.0"* pickOnBounds=*"true"* preserveRatio=*"true"*>

<image>

<Image url=*"@Images/sellHome.png"* />

</image>

</ImageView>

</graphic>

<cursor>

<Cursor fx:constant=*"HAND"* />

</cursor>

</Button>

<Button id=*"topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab\_HBox1\_Loan\_Butt"* fx:id=*"topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab\_HBox1\_Loan\_Butt"* layoutX=*"140.0"* layoutY=*"20.0"* mnemonicParsing=*"false"* style=*"-fx-background-color: white;"*>

<graphic>

<ImageView fitHeight=*"49.0"* fitWidth=*"55.0"* pickOnBounds=*"true"* preserveRatio=*"true"*>

<image>

<Image url=*"@Images/loanHouse.png"* />

</image>

</ImageView>

</graphic>

<cursor>

<Cursor fx:constant=*"HAND"* />

</cursor>

</Button>

<Button id=*"topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab\_HBox1\_Agents\_Butt"* fx:id=*"topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab\_HBox1\_Agents\_Butt"* layoutX=*"468.0"* layoutY=*"20.0"* mnemonicParsing=*"false"* style=*"-fx-background-color: white;"*>

<graphic>

<HBox prefHeight=*"44.0"* prefWidth=*"115.0"*>

<children>

<ImageView fitHeight=*"68.0"* fitWidth=*"44.0"* pickOnBounds=*"true"* preserveRatio=*"true"*>

<image>

<Image url=*"@Images/agent.png"* />

</image>

<HBox.margin>

<Insets right=*"5.0"* />

</HBox.margin>

</ImageView>

<Label prefHeight=*"30.0"* prefWidth=*"69.0"* text=*"Agents"*>

<font>

<Font size=*"20.0"* />

</font>

<HBox.margin>

<Insets top=*"6.0"* />

</HBox.margin>

</Label>

</children>

</HBox>

</graphic>

<cursor>

<Cursor fx:constant=*"HAND"* />

</cursor>

</Button>

<Button id=*"topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab\_HBox1\_News\_Butt"* fx:id=*"topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab\_HBox1\_News\_Butt"* layoutX=*"402.0"* layoutY=*"20.0"* mnemonicParsing=*"false"* style=*"-fx-background-color: white;"*>

<graphic>

<ImageView fitHeight=*"49.0"* fitWidth=*"55.0"* pickOnBounds=*"true"* preserveRatio=*"true"*>

<image>

<Image url=*"@Images/newspaper.png"* />

</image>

</ImageView>

</graphic>

<cursor>

<Cursor fx:constant=*"HAND"* />

</cursor>

</Button>

</children>

</HBox>

<HBox id=*"topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab\_HBox2"* fx:id=*"topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab\_HBox2"* alignment=*"CENTER"* style=*"-fx-background-color: white;"*>

<HBox.margin>

<Insets />

</HBox.margin>

<children>

<Button id=*"topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab\_HBox2\_Close\_Butt"* fx:id=*"topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab\_HBox2\_Close\_Butt"* alignment=*"CENTER"* mnemonicParsing=*"false"* onAction=*"#close\_topNavigationBar1\_HBox1\_Dropdown\_Menu\_Tab"* prefHeight=*"27.0"* prefWidth=*"34.0"* text=*"X"* textFill=*"WHITE"*>

<font>

<Font size=*"14.0"* />

</font>

<effect>

<DropShadow blurType=*"ONE\_PASS\_BOX"* />

</effect>

<cursor>

<Cursor fx:constant=*"HAND"* />

</cursor>

</Button>

</children>

</HBox>

</children>

<opaqueInsets>

<Insets />

</opaqueInsets>

</HBox>

</content>

</ScrollPane>

</children>

</VBox>