Log of Mr. Ping’s Coders.

Members:

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Fei Cao,

Douhao Ma,

Project log and Timeline:

2023/01/23: Team was form

2023/03/12: Frist Discussion about the final project. 2 ideas were discussed

1. restaurant managing system

2. a game with GUI called “love letters”

Option 1 was agreed upon

2023/03/28: Shen Wang wrote the project proposal

Fei Cao designed the 1st GUI outlook framework

Douhao Ma came up with the 1st frame work of backend

1. 4 packages were included: application, controller, model, tools

2. a database, db.db is generate to store primitive data for testing

2023/04/02: Shen Wang updated da.db with more realistic values, updated the User class.

2023/04/05: 1. Shen Wang updated the login page function.

Now login page will lead to the owner page.

2. Shen updated the “food” class definition.

3. Shen updated the “order” class definition.

4. Shen updated the existing database items about “food”.

Learned:

20230406:

You can use the following code to convert an integer to a string with leading zeros in Java:

String.format("%06d", 15);

20230406:

how to show an ArrayList in a tableview in scene builder?

You can show an ArrayList in a TableView in Scene Builder by following these steps:

1. Create a TableView in Scene Builder.
2. Create a TableColumn for each field in your data model class.
3. Set the cell value factory for each column to a PropertyValueFactory that corresponds to the field name.
4. Create an ObservableList of your data model objects.
5. Set the items of your TableView to the ObservableList.

Here’s an example code snippet that shows how to populate a TableView with an ArrayList:

@FXML

private TableView<Person> tableView;

@FXML

private TableColumn<Person, String> firstNameColumn;

@FXML

private TableColumn<Person, String> lastNameColumn;

private ObservableList<Person> personList = FXCollections.observableArrayList();

public void initialize() {

firstNameColumn.setCellValueFactory(new PropertyValueFactory<>("firstName"));

lastNameColumn.setCellValueFactory(new PropertyValueFactory<>("lastName"));

ArrayList<Person> people = new ArrayList<>();

people.add(new Person("John", "Doe"));

people.add(new Person("Jane", "Doe"));

personList.addAll(people);

tableView.setItems(personList);

}

Q: What is the arguement for me new PropertyValueFactory<>()?

The argument for the constructor of PropertyValueFactory is the name of the property that you want to bind to the column. For example, if you have a Person class with a firstName property, you can create a PropertyValueFactory like this:

new PropertyValueFactory<>("firstName")

This will bind the firstName property of your Person objects to the column.

Note that the name of the property must match exactly with the name of the getter method in your data model class. For example, if you have a getFirstName() method in your Person class, then your property name should be “firstName”.

2023/4/6

Encountered error:

4�� 06, 2023 5:36:33 ���� javafx.scene.control.cell.PropertyValueFactory getCellDataReflectively

WARNING: Can not retrieve property 'foodNameString' in PropertyValueFactory: javafx.scene.control.cell.PropertyValueFactory@79257c61 with provided class type: class model.Order

java.lang.IllegalStateException: Cannot read from unreadable property foodNameString

And after many tries, realized that it was the mistake on the decorator “private” of the getter function.

The field foodNameString is not retrieved by input, but from

20230409

Q: write a scene builder controller for a "addDish" button that will take input from " @FXML private TextField dishName; @FXML private TextField price; @FXML private ImageView dishImage; @FXML private TextArea dishDescription; @FXML private TextArea Ingradient;" and generate a new anchorPane " @FXML private GridPane DishGallery;" on the new unccupied grid cell, upon which there can be a button. And add a record item to data base" Dbinitializer.initDatabase(); Food food = new Food("food2", 10, "food2 des"); food.addFood(food);"

Bing/chat: To create a Scene Builder controller for an “addDish” button that will take input from the following fields:

@FXML

private TextField dishName;

@FXML

private TextField price;

@FXML

private ImageView dishImage;

@FXML

private TextArea dishDescription;

@FXML

private TextArea Ingradient;

and generate a new AnchorPane on the new unoccupied grid cell with a button, you can follow these steps:

1. Create a new AnchorPane object using AnchorPane anchorPane = new AnchorPane();
2. Set the constraints of the AnchorPane object using AnchorPane.setTopAnchor(anchorPane, 0.0);, AnchorPane.setLeftAnchor(anchorPane, 0.0);, AnchorPane.setRightAnchor(anchorPane, 0.0);, and AnchorPane.setBottomAnchor(anchorPane, 0.0);. This will ensure that the AnchorPane object fills up the entire grid cell.
3. Add the input fields to the AnchorPane object using anchorPane.getChildren().addAll(dishName, price, dishImage, dishDescription, Ingradient);.
4. Add a button to the AnchorPane object using Button button = new Button("Add Dish"); and then set its position using AnchorPane.setBottomAnchor(button, 10.0); and AnchorPane.setRightAnchor(button, 10.0);.
5. Add the button to the AnchorPane object using anchorPane.getChildren().add(button);.
6. Finally, add the AnchorPane object to the GridPane object using DishGallery.add(anchorPane, columnNumber, rowNumber);.

To add a record item to database you can follow these steps:

1. Create an instance of your database class using Dbinitializer.initDatabase();.
2. Create an instance of your Food class using Food food = new Food("food2", 10, "food2 des");.
3. Add the food item to your database using food.addFood(food);.

I hope this helps! Let me know if you have any other questions.

Q : How to get the columnNumber and rowNumber of the unused grid cell in a gridPane in scene builder ？

To get the columnNumber and rowNumber of an unused grid cell in a GridPane in Scene Builder, you can use the following code:

```

int columnNumber = -1;

int rowNumber = -1;

for (int i = 0; i < gridPane.getColumnCount(); i++) {

for (int j = 0; j < gridPane.getRowCount(); j++) {

if (gridPane.getChildren().stream().noneMatch(node -> GridPane.getColumnIndex(node) == i && GridPane.getRowIndex(node) == j)) {

columnNumber = i;

rowNumber = j;

break;

}

}

if (columnNumber != -1 && rowNumber != -1) {

break;

}

}

```

This code loops through all of the cells in the GridPane and checks if there is a child node at that cell. If there isn't a child node at that cell, then it sets the columnNumber and rowNumber variables to the current column and row index.

I hope this helps! Let me know if you have any other questions.

Source: Conversation with Bing, 4/9/2023

(1) javafx GridPane retrieve specific Cell content - Stack Overflow. https://stackoverflow.com/questions/20655024/javafx-gridpane-retrieve-specific-cell-content.

(2) java - How do I make GridPane fill the entire scene? (JavaFX .... https://stackoverflow.com/questions/35065429/how-do-i-make-gridpane-fill-the-entire-scene-javafx-scenebuilder-w-eclipse-lu.

(3) JavaFX Scene Builder User Guide - Oracle. https://docs.oracle.com/javafx/scenebuilder/1/user\_guide/library-panel.htm.

(4) GridPane (JavaFX 8) - Oracle. https://docs.oracle.com/javase/8/javafx/api/javafx/scene/layout/GridPane.html.

(5) java - GridPane adjustments in SceneBuilder - Stack Overflow. https://stackoverflow.com/questions/44157355/gridpane-adjustments-in-scenebuilder.

2023/04/09:

Q: In javaFX, How to populate the gridPane with images from "for(Food food: foodList) { System.out.println(food.getImage()+""); }" with each image pasting on a borderPane in the grid cell?

You can populate a GridPane with images in JavaFX by creating an ImageView for each image and adding it to the GridPane using the `add` method. Here's an example:

```java

for (Food food : foodList) {

ImageView imageView = new ImageView(food.getImage());

BorderPane borderPane = new BorderPane();

borderPane.setCenter(imageView);

gridPane.add(borderPane, columnIndex, rowIndex);

// update columnIndex and rowIndex for next image

}

```

This code creates an ImageView for each Food object in the foodList and adds it to a BorderPane. The BorderPane is then added to the GridPane at the specified columnIndex and rowIndex. You'll need to update the columnIndex and rowIndex for each image to position them correctly in the GridPane.

Is this what you were looking for? Let me know if you need more information or if you have any other questions.

2023/04/09:

Q: How to set the image size fitting to the ImageView in javaFX?

Bing Chat: In JavaFX, you can make an image fit the size of an `ImageView` by setting the `fitWidth` and `fitHeight` properties of the `ImageView`. You can also set the `preserveRatio` property to `true` to maintain the aspect ratio of the image while resizing. Here's an example:

```java

imageView.setFitWidth(width);

imageView.setFitHeight(height);

imageView.setPreserveRatio(true);

```

This code sets the `fitWidth` and `fitHeight` properties of the `ImageView` to the desired width and height, and sets the `preserveRatio` property to `true` to maintain the aspect ratio of the image while resizing.

Is this what you were looking for? Let me know if you have any other questions.

Q: How to add a button on a borderPane, uponAction, it will popularize the given textFiled. The name of the button shall be aligned to the bottom of the borderPane.

Here's an example of how you can add a button to the bottom of a BorderPane in JavaFX and set its action to populate a TextField:

```java

Button btn = new Button("Button Name");

TextField textField = new TextField();

btn.setOnAction(new EventHandler<ActionEvent>() {

@Override

public void handle(ActionEvent event) {

textField.setText("Text to populate");

}

});

BorderPane borderPane = new BorderPane();

borderPane.setBottom(btn);

```

Is this what you were looking for? 😊

2023/4/10

Q: how to add a new image to existing imageView?

A: You can set a new image to an existing ImageView in JavaFX by calling the `setImage` method on the ImageView object and passing in a new Image object as an argument. Here's an example:

```java

ImageView imageView = new ImageView();

Image newImage = new Image("file:newImage.png");

imageView.setImage(newImage);

```

This will set the image displayed by the ImageView to the image located at `newImage.png`. Is this what you were looking for? 😊

2023/04/10

Q: when a button and a imageView are both on a borderPane, how to set button laying on top of the imageView?

In JavaFX, a BorderPane can only have one child node in each of its five regions (top, right, bottom, left, and center). So you cannot directly add a Button and an ImageView to the same region of a BorderPane.

However, you can achieve the desired effect by adding both the Button and the ImageView to a StackPane and then adding the StackPane to the desired region of the BorderPane. Here's an example:

```java

Button btn = new Button("Button Name");

ImageView imageView = new ImageView(new Image("file:image.png"));

StackPane stackPane = new StackPane();

stackPane.getChildren().addAll(imageView, btn);

BorderPane borderPane = new BorderPane();

borderPane.setCenter(stackPane);

```

This will add the ImageView and the Button to the center region of the BorderPane with the Button laying on top of the ImageView. Is this what you were looking for? 😊

2023/04/10

Q: how to set the button alignment in the stackPane to "bottom"?

You can set the alignment of a Button within a StackPane to the bottom by calling the setAlignment method on the StackPane object and passing in the Button object and the Pos.BOTTOM\_CENTER constant as arguments. Here’s an example:

Button btn = new Button("Button Name");

ImageView imageView = new ImageView(new Image("file:image.png"));

StackPane stackPane = new StackPane();

stackPane.getChildren().addAll(imageView, btn);

StackPane.setAlignment(btn, Pos.BOTTOM\_CENTER);

BorderPane borderPane = new BorderPane();

borderPane.setCenter(stackPane);

This will add the ImageView and the Button to the center region of the BorderPane with the Button laying on top of the ImageView and aligned to the bottom. Is this what you were looking for? 😊

2023/04/10

Q: set the text on the button to wrap up

You can set the text on a Button in JavaFX to wrap by calling the setWrapText method on the Button object and passing in true as an argument. Here’s an example:

Button btn = new Button("Button Name");

btn.setWrapText(true);

This will set the text on the Button to wrap if it is too long to fit within the Button’s width. Is this what you were looking for? 😊

2023/04/10

Q: set the button 50% transparent background

You can set the background of a Button in JavaFX to be 50% transparent by setting its background color to a color with an opacity of 0.5. Here’s an example:

Button btn = new Button("Button Name");

btn.setStyle("-fx-background-color: rgba(255, 255, 255, 0.5);");

This will set the background color of the Button to white with an opacity of 0.5, making it 50% transparent. You can change the RGB values to set the background color to a different color. Is this what you were looking for? 😊

2023/04/10

Q: How to make a pop up window for picking image file in scene builder?

A: In JavaFX, you can use the FileChooser class to create a file chooser dialog that allows the user to select an image file. Here’s an example that shows how to create and display a FileChooser in response to a button click:

Button button = new Button("Select Image");

button.setOnAction(e -> {

FileChooser fileChooser = new FileChooser();

fileChooser.setTitle("Select Image File");

fileChooser.getExtensionFilters().addAll(

new FileChooser.ExtensionFilter("Image Files", "\*.png", "\*.jpg", "\*.gif"));

File selectedFile = fileChooser.showOpenDialog(primaryStage);

if (selectedFile != null) {

// handle selected file

}

});

This creates a new Button and sets its onAction property to a lambda expression that creates a new FileChooser when the button is clicked. The setTitle() method sets the title of the file chooser dialog, and the getExtensionFilters() method is used to add a filter that only shows image files with the specified extensions.

The showOpenDialog() method displays the file chooser dialog and returns the selected file. If the user selects a file, you can handle it in the if block.

You can add this button to your scene in Scene Builder by dragging a Button from the Library panel to the Content panel and setting its properties in the Inspector panel.

Is this what you were looking for?