

Кафедра систем штучного інтелекту

Лабораторна робота №15
з дисципліни
«Об’єктно-орієнтоване програмування»

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Код програми:

1)

```
package week15;
```

```
import javafx.application.Application;
import javafx.beans.property.SimpleStringProperty;
import javafx.collections.FXCollections;
import javafx.collections.ObservableList;
import javafx.event.ActionEvent;
import javafx.geometry.Insets;
import javafx.scene.Group;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.scene.control.Label;
import javafx.scene.control.TableColumn;
import javafx.scene.control.TableView;
import javafx.scene.control.TextField;
import javafx.scene.control.cell.PropertyValueFactory;
import javafx.scene.layout.HBox;
import javafx.scene.layout.VBox;
import javafx.scene.text.Font;
import javafx.stage.Stage;
```

```
public class Controller extends Application {
```

```
    private final TableView<TradePoint> table = new TableView<>();
    private final ObservableList<TradePoint> data =
        FXCollections.observableArrayList(
            new TradePoint( "Bruce", "1SalmanelaStreet","vdsvsdv", "Rich",
                "Tuesday", "17:00"),
            new TradePoint( "Jason", "2SalmanelaStreet","iyx553535", "Cook",
                "Tuesday", "11:00"),
            new TradePoint( "Steve", "3SalmanelaStreet","d880553535",
                "Soldier", "Tuesday", "16:00"),
            new TradePoint( "Thor", "4SalmanelaStreet","fg880553535",
                "Superhero", "Tuesday", "14:00"),
            new TradePoint( "Joe", "5SalmanelaStreet","qwadfggfhhn", "Cook",
                "Tuesday", "17:00"));
    final HBox hb = new HBox();

    public static void main(String[] args) {
        launch(args);
    }
}
```

```

@Override
public void start(Stage stage) {
    Scene scene = new Scene(new Group());
    stage.setTitle("Trade Points");
    stage.setWidth(650);
    stage.setHeight(550);

    final Label label = new Label("Trade Point");
    label.setFont(new Font("Arial", 20));

    table.setEditable(true);

    TableColumn nameCol = new TableColumn("Name");
    nameCol.setMinWidth(100);
    nameCol.setCellValueFactory(
        new PropertyValueFactory<>("name"));

    TableColumn adressCol = new TableColumn("Adress");
    adressCol.setMinWidth(100);
    adressCol.setCellValueFactory(
        new PropertyValueFactory<>("adress"));

    TableColumn numberCol = new TableColumn("Number");
    numberCol.setMinWidth(100);
    numberCol.setCellValueFactory(
        new PropertyValueFactory<>("number"));

    TableColumn specializationCol = new TableColumn("Specialization");
    specializationCol.setMinWidth(100);
    specializationCol.setCellValueFactory(
        new PropertyValueFactory<>("specialization"));

    TableColumn dayCol = new TableColumn("Day");
    dayCol.setMinWidth(100);
    dayCol.setCellValueFactory(
        new PropertyValueFactory<>("day"));

    TableColumn timeCol = new TableColumn("Time");
    timeCol.setMinWidth(100);
    timeCol.setCellValueFactory(
        new PropertyValueFactory<>("time"));

    table.setItems(data);
    table.getColumns().addAll(nameCol, adressCol, numberCol,
specializationCol, dayCol, timeCol);

```

```
final TextField addName = new TextField();
addName.setPromptText("Name");
addName.setMaxWidth(nameCol.getPrefWidth());
```

```
final TextField addAddress = new TextField();
addAddress.setMaxWidth(addressCol.getPrefWidth());
addAddress.setPromptText("Address");
```

```
final TextField addNumbers = new TextField();
addNumbers.setMaxWidth(numberCol.getPrefWidth());
addNumbers.setPromptText("Number");
```

```
final TextField addSpecialization = new TextField();
addSpecialization.setMaxWidth(specializationCol.getPrefWidth());
addSpecialization.setPromptText("Specialization");
```

```
final TextField addDay = new TextField();
addDay.setMaxWidth(dayCol.getPrefWidth());
addDay.setPromptText("Day");
```

```
final TextField addTime = new TextField();
addTime.setMaxWidth(timeCol.getPrefWidth());
addTime.setPromptText("Time");
```

```
final Button addButton = new Button("Add");
addButton.setOnAction((ActionEvent e) -> {
    data.add(new TradePoint(
        addName.getText(),
        addAddress.getText(),
        addNumbers.getText(),
        addSpecialization.getText(),
        addDay.getText(),
        addTime.getText()));
    addName.clear();
    addAddress.clear();
    addNumbers.clear();
    addSpecialization.clear();
    addDay.clear();
    addTime.clear();
});
```

```
hb.getChildren().addAll(addName, addAddress, addNumbers,
addSpecialization, addDay, addTime, addButton);
hb.setSpacing(10);
```

```

final VBox vbox = new VBox();
vbox.setSpacing(10);
vbox.setPadding(new Insets(10, 0, 0, 10));
vbox.getChildren().addAll(label, table, hb);

((Group) scene.getRoot()).getChildren().addAll(vbox);

stage.setScene(scene);
stage.show();
}

```

```

public static class TradePoint{
    private final SimpleStringProperty name;
    private final SimpleStringProperty address;
    private final SimpleStringProperty number;
    private final SimpleStringProperty specialization;
    private final SimpleStringProperty day;
    private final SimpleStringProperty time;
    private TradePoint(String name1, String adress1, String number1, String
specialization1, String day1, String time1){
        this.name = new SimpleStringProperty(name1);
        this.adress = new SimpleStringProperty(adress1);
        this.number = new SimpleStringProperty(number1);
        this.specialization = new SimpleStringProperty(specialization1);
        this.day = new SimpleStringProperty(day1);
        this.time = new SimpleStringProperty(time1);
    }

    public String getName() {
        return name.get();
    }

    public void setName(String fName) {
        name.set(fName);
    }

    public String getAdress() {
        return adress.get();
    }

    public void setAddress(String fName) {
        adress.set(fName);
    }
}

```

```
public String getNumber() {  
    return number.get();  
}  
  
public void setNumber(String fName) {  
    number.set(fName);  
}  
  
public String getSpecialization() {  
    return specialization.get();  
}  
  
public void setSpecialization(String fName) {  
    specialization.set(fName);  
}  
  
public String getDay() {  
    return day.get();  
}  
  
public void setDay(String fName) {  
    day.set(fName);  
}  
  
public String getTime() {  
    return time.get();  
}  
  
public void setTime(String fName) {  
    time.set(fName);  
}  
}  
}
```

The screenshot shows the Eclipse IDE interface. The Package Explorer on the left lists the project structure, including a package named `week15` containing a `Controller.java` file. The main editor displays the `Trade Point` application, which features a table with the following data:

Name	Address	Number	Specialization	Day	Time
Bruce	1SalmanelaStreet	vdvsdv	Rich	Tuesday	17:00
Jason	2SalmanelaStreet	ty553535	Cook	Tuesday	11:00
Steve	3SalmanelaStreet	4880553535	Soldier	Tuesday	16:00
Thor	4SalmanelaStreet	fg880553535	Superhero	Tuesday	14:00
Joe	5SalmanelaStreet	qwadfggfh	Cook	Tuesday	17:00

Below the table, there are input fields for Name, Address, Number, Specialization, Day, and Time, along with an Add button. The Outline view on the right shows the class structure, including `SimpleStringProperty` and `TradePoint` with its various getters and setters. The Console view at the bottom shows the output of the application, indicating that the `Controller` class is running.

Рис.1 Результат роботи програми