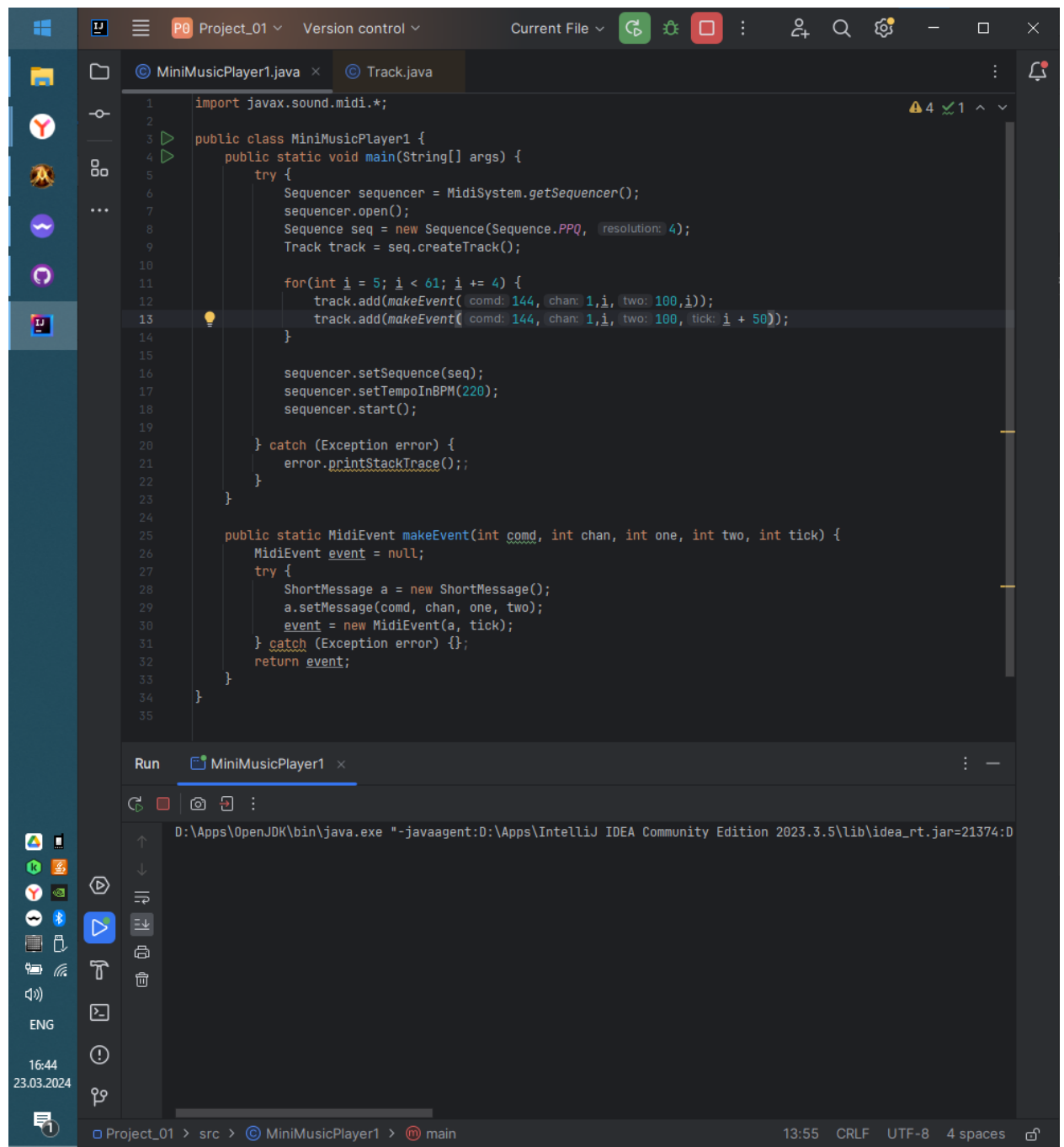


Ссылка на код:

https://github.com/Kimral/EducationWorks/tree/main/ООП/Java_labs/labwork_15/Project_03



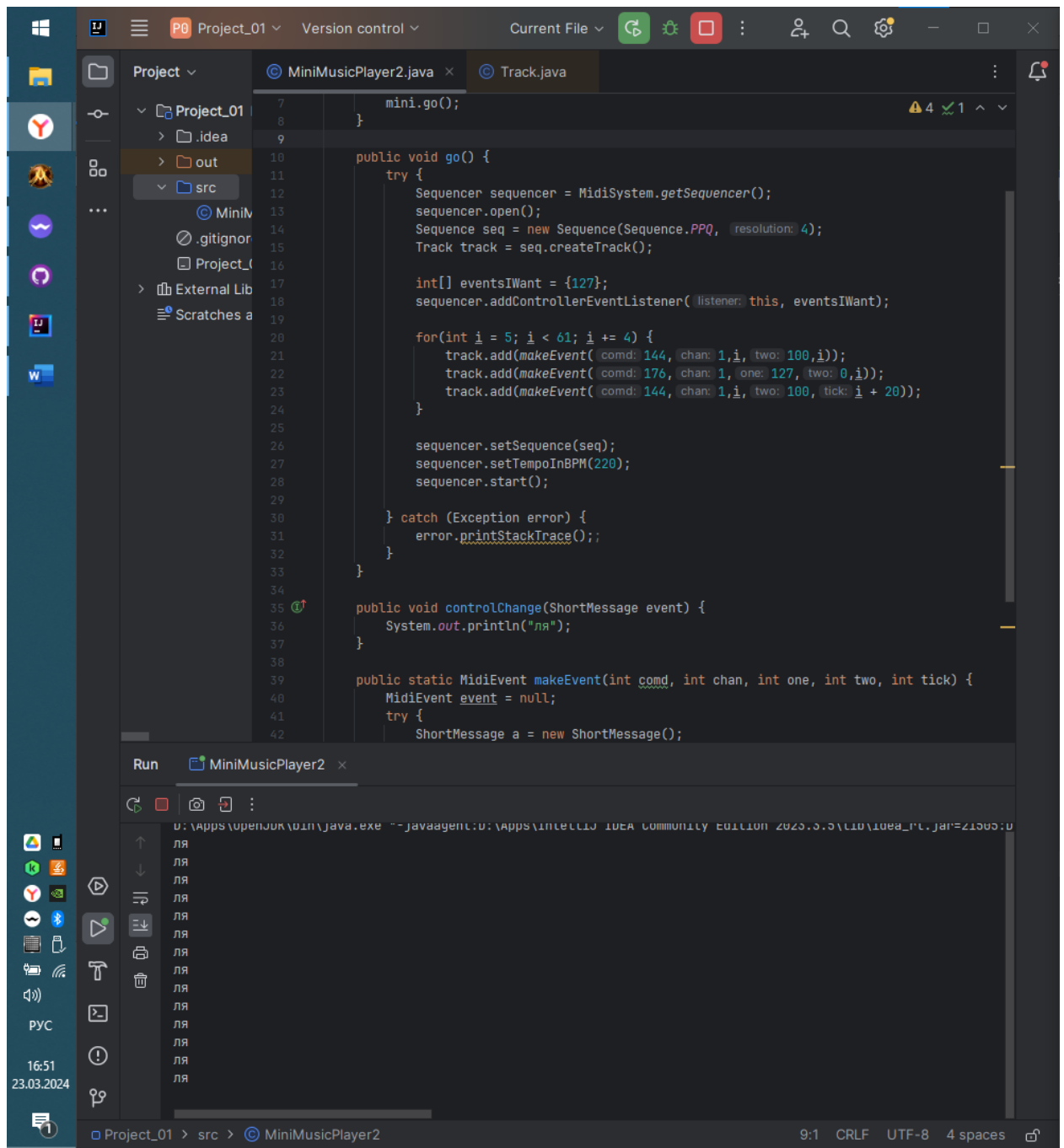
```
1 import javax.sound.midi.*;
2
3 public class MiniMusicPlayer1 {
4     public static void main(String[] args) {
5         try {
6             Sequencer sequencer = MidiSystem.getSequencer();
7             sequencer.open();
8             Sequence seq = new Sequence(Sequence.PPQ, resolution: 4);
9             Track track = seq.createTrack();
10
11             for(int i = 5; i < 61; i += 4) {
12                 track.add(makeEvent( comd: 144, chan: 1,i, two: 100,i));
13                 track.add(makeEvent( comd: 144, chan: 1,i, two: 100, tick: i + 50));
14             }
15
16             sequencer.setSequence(seq);
17             sequencer.setTempoInBPM(220);
18             sequencer.start();
19
20         } catch (Exception error) {
21             error.printStackTrace();
22         }
23     }
24
25     public static MidiEvent makeEvent(int comd, int chan, int one, int two, int tick) {
26         MidiEvent event = null;
27         try {
28             ShortMessage a = new ShortMessage();
29             a.setMessage(comd, chan, one, two);
30             event = new MidiEvent(a, tick);
31         } catch (Exception error) {}
32         return event;
33     }
34 }
35
```

Run MiniMusicPlayer1 x

D:\Apps\OpenJDK\bin\java.exe -javaagent:D:\Apps\IntelliJ IDEA Community Edition 2023.3.5\lib\idea_rt.jar=21374:D

Project_01 > src > MiniMusicPlayer1 > main 13:55 CRLF UTF-8 4 spaces

Этот код просто проигрывает некоторые ноты.



Тут в консоль пишется “ля”

IDE interface showing a Java project named "Project_03" with two source files: "MiniMusicPlayer3.java" and "MyDrawPanel.java". The code in "MiniMusicPlayer3.java" imports javax.sound.midi.* and javax.swing.*, and defines a public class MiniMusicPlayer3. The class has static variables JFrame f and MyDrawPanel mL, a main method, a setUpGui method, and a go method. The go method uses MidiSystem, Sequencer, Sequence, and Track to generate a sequence of notes. The IDE also shows a Run window with the command "D:\Apps\OpenJDK\bin\java.exe -javaagent:D:\Apps\IntelliJ IDEA" and a small window titled "15_03" displaying a colorful abstract pattern.

```
1 import javax.sound.midi.*;
2 import javax.swing.*;
3
4 public class MiniMusicPlayer3 {
5
6     static JFrame f = new JFrame( "15_03");
7     static MyDrawPanel mL;
8
9     public static void main(String[] args) {
10         MiniMusicPlayer3 mini = new MiniMusicPlayer3();
11         mini.go();
12     }
13
14     public void setUpGui() {
15         mL = new MyDrawPanel();
16         f.setContentPane(mL);
17         f.setBounds( x: 30, y: 30, width: 300, height: 300);
18         f.setVisible(true);
19     }
20
21     public void go() {
22         setUpGui();
23         try {
24             Sequencer sequencer = MidiSystem.getSequencer();
25             sequencer.open();
26             sequencer.addControllerEventListener(mL, new int[] {127});
27             Sequence seq = new Sequence(Sequence.PPQ, resolution: 4);
28             Track track = seq.createTrack();
29
30             int p = 0;
31             for(int i = 0; i < 60; i += 4) {
32                 p = (int) (Math.random() * 50 + 1);
33                 track.add(makeEvent( comd: 144, chan: 1, p, two: 100,i));
34                 track.add(makeEvent( comd: 176, chan: 1, one: 127, two: 0,i));
35                 track.add(makeEvent( comd: 144, chan: 1, p, two: 100, tick: i + 2
36             }
```

Run MiniMusicPlayer3 x

D:\Apps\OpenJDK\bin\java.exe -javaagent:D:\Apps\IntelliJ IDEA

15_03

Project_03 > src > MiniMusicPlayer3 > go

45:6 CRLF UTF-8 4 spaces