

```
1 import javax.swing.*;
2 import javax.swing.table.*;
3 import java.awt.*;
4 import java.util.*;
5 import java.io.*;
6 import java.util.List;
7 import javax.imageio.ImageIO;
8
9 public class PokemonCardTracker {
10     static class AttackInfo {
11         String attackName;
12         String damage;
13         String effect;
14         AttackInfo(String attackName, String damage,
15 String effect) {
16             this.attackName = attackName;
17             this.damage = damage;
18             this.effect = effect;
19         }
20         public String toString() { return attackName
21 ; }
22     }
23
24     static class Card {
25         String name, type, attack, damage, rarity,
26 effect;
27         ImageIcon image;
28
29         Card(String name, String type, String attack
30 , String damage, String rarity, String effect,
31 ImageIcon image) {
32             this.name = name;
33             this.type = type;
34             this.attack = attack;
35             this.damage = damage;
36             this.rarity = rarity;
37             this.effect = effect;
38             this.image = image;
39         }
40     }
41 }
```

```

37      // Direktorij Jar file-a
38      public static String getJarDir() {
39          try {
40              String path = PokemonCardTracker.class.
getProtectionDomain().getCodeSource().getLocation().
toURI().getPath();
41              File jarFile = new File(path);
42              return jarFile.getParent();
43          } catch (Exception e) {
44              return System.getProperty("user.dir");
45          }
46      }
47
48      // Custom JPanel za pozadinu app-a
49      static class BackgroundPanel extends JPanel {
50          private Image backgroundImage;
51          public BackgroundPanel(String imagePath) {
52              try {
53                  backgroundImage = ImageIO.read(new
File(imagePath));
54              } catch (IOException e) {
55                  System.out.println("Background image
not found: " + e.getMessage());
56              }
57              setLayout(new BorderLayout());
58          }
59          @Override
60          protected void paintComponent(Graphics g) {
61              super.paintComponent(g);
62              if (backgroundImage != null) {
63                  g.drawImage(backgroundImage, 0, 0,
getWidth(), getHeight(), this);
64              }
65          }
66      }
67
68      // Podaci za attribute pokemona
69      private static final Set<String>
FIRST_GEN_POKEMON = new LinkedHashSet<>();
70      private static final Set<String> POKEMON_TYPES =
new LinkedHashSet<>();

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71     private static final Map<String, List<AttackInfo
    >> ATTACKS = new HashMap<>();
72     private static final Map<String, String>
    POKEMON_TYPE = new HashMap<>();
73     private static final String[] RARITIES = {
74         "Common", "Uncommon", "Rare", "Rare Hoło
    ", "Reverse Hoło", "Ultra Rare", "Secret Rare", "
    Promo", "Shiny Rare"
75     };
76
77     // Učitavanje podataka iz CSV-a
78     static {
79         String baseDir = getJarDir();
80         File csvFile = new File(baseDir, "poke.csv"
    );
81         try (BufferedReader br = new BufferedReader(
    new FileReader(csvFile))) {
82             String line = br.readLine(); // skip
    header
83             while ((line = br.readLine()) != null) {
84                 String[] parts = line.split(",", 5);
85                 if (parts.length < 5) continue;
86                 String name = parts[0].trim();
87                 String type = parts[1].trim();
88                 String attack = parts[2].trim();
89                 String damage = parts[3].trim();
90                 String effect = parts[4].trim();
91                 FIRST_GEN_POKEMON.add(name);
92                 POKEMON_TYPES.add(type);
93                 POKEMON_TYPE.put(name, type);
94                 ATTACKS.computeIfAbsent(name, k ->
    new ArrayList<>())
95                     .add(new AttackInfo(attack,
    damage, effect));
96             }
97         } catch (IOException e) {
98             JOptionPane.showMessageDialog(null, "
    Error loading poke.csv: " + e.getMessage());
99         }
100     }
101

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102     private final List<Card> cards = new ArrayList
    <>();
103     private final DefaultTableModel tableModel;
104     private final JTable table;
105
106     public PokemonCardTracker() {
107         JFrame frame = new JFrame("Pokémon Card
    Tracker");
108         frame.setDefaultCloseOperation(JFrame.
    EXIT_ON_CLOSE);
109         frame.setSize(1000, 550);
110
111         // Jos jedan dio za custom pozadinu
112         String baseDir = getJarDir();
113         BackgroundPanel backgroundPanel = new
    BackgroundPanel(new File(baseDir, "pokeball.jpg").
    getAbsolutePath());
114
115         // Postavljanje tablica
116         String[] columns = {"Name", "Type", "Attack"
    , "Damage", "Rarity", "Effect", "Image"};
117         tableModel = new DefaultTableModel(columns,
    0) {
118             public boolean isCellEditable(int row,
    int column) { return false; }
119             public Class<?> getColumnClass(int
    column) {
120                 return column == 6 ? ImageIcon.class
    : String.class;
121             }
122         };
123         table = new JTable(tableModel);
124         table.setRowHeight(60);
125         JScrollPane scrollPane = new JScrollPane(
    table);
126         scrollPane.setOpaque(false);
127         scrollPane.getViewport().setOpaque(false);
128
129         // Input polja
130         JComboBox<String> nameBox = new JComboBox<>(
    FIRST_GEN_POKEMON.toArray(new String[0]));

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131         JComboBox<String> typeBox = new JComboBox<>(  

    POKEMON_TYPES.toArray(new String[0]));  

132         JComboBox<AttackInfo> attackBox = new  

    JComboBox<>();  

133         JTextField damageField = new JTextField(4);  

134         damageField.setEditable(false);  

135         JComboBox<String> rarityBox = new JComboBox  

    <>(RARITIES);  

136         JTextField effectField = new JTextField(18);  

137         JLabel imageLabel = new JLabel();  

138         JButton uploadBtn = new JButton("Upload  

    Image");  

139         JButton addBtn = new JButton("Add Card");  

140         JButton removeBtn = new JButton("Remove Card  

    ");  

141  

142         JPanel inputPanel = new JPanel();  

143         inputPanel.setOpaque(false);  

144         inputPanel.add(new JLabel("Name:"));  

    inputPanel.add(nameBox);  

145         inputPanel.add(new JLabel("Type:"));  

    inputPanel.add(typeBox);  

146         inputPanel.add(new JLabel("Attack:"));  

    inputPanel.add(attackBox);  

147         inputPanel.add(new JLabel("Damage:"));  

    inputPanel.add(damageField);  

148         inputPanel.add(new JLabel("Rarity:"));  

    inputPanel.add(rarityBox);  

149         inputPanel.add(new JLabel("Effect:"));  

    inputPanel.add(effectField);  

150         inputPanel.add(uploadBtn); inputPanel.add(  

    imageLabel);  

151         inputPanel.add(addBtn);  

152         inputPanel.add(removeBtn);  

153  

154         // Filter polja  

155         JComboBox<String> filterNameBox = new  

    JComboBox<>();  

156         filterNameBox.addItem("");  

157         for (String n : FIRST_GEN_POKEMON)  

    filterNameBox.addItem(n);

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158         JComboBox<String> filterTypeBox = new
        JComboBox<>();
159         filterTypeBox.addItem("");
160         for (String t : POKEMON_TYPES) filterTypeBox
        .addItem(t);
161         JComboBox<String> filterAttackBox = new
        JComboBox<>();
162         filterAttackBox.addItem("");
163         JTextField filterDamage = new JTextField(4);
164         JComboBox<String> filterRarityBox = new
        JComboBox<>();
165         filterRarityBox.addItem("");
166         for (String r : RARITIES) filterRarityBox.
        addItem(r);
167         JTextField filterEffect = new JTextField(10
        );
168         JButton filterBtn = new JButton("Filter");
169         JButton resetBtn = new JButton("Reset");
170
171         JPanel filterPanel = new JPanel();
172         filterPanel.setOpaque(false);
173         filterPanel.add(new JLabel("Name:"));
        filterPanel.add(filterNameBox);
174         filterPanel.add(new JLabel("Type:"));
        filterPanel.add(filterTypeBox);
175         filterPanel.add(new JLabel("Attack:"));
        filterPanel.add(filterAttackBox);
176         filterPanel.add(new JLabel("Damage:"));
        filterPanel.add(filterDamage);
177         filterPanel.add(new JLabel("Rarity:"));
        filterPanel.add(filterRarityBox);
178         filterPanel.add(new JLabel("Effect:"));
        filterPanel.add(filterEffect);
179         filterPanel.add(filterBtn); filterPanel.add(
        resetBtn);
180
181         // Postavljanje napada kad se ime promjeni
182         nameBox.addActionListener(e -> {
183             String selected = (String) nameBox.
        getSelectedItem();
184             attackBox.removeAllItems();

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185         if (selected != null && ATTACKS.
containsKey(selected)) {
186             for (AttackInfo info : ATTACKS.get(
selected)) attackBox.addItem(info);
187             typeBox.setSelectedItem(POKEMON_TYPE
.get(selected));
188         }
189     });
190     // Postavljanje efekta i damage-a kad se
napad promjeni
191     attackBox.addActionListener(e -> {
192         AttackInfo info = (AttackInfo) attackBox
.getSelectedSelectedItem();
193         if (info != null) {
194             damageField.setText(info.damage);
195             effectField.setText(info.effect);
196         } else {
197             damageField.setText("");
198             effectField.setText("");
199         }
200     });
201     // Inicijalizacija attackboxa za prvog
pokemona
202     nameBox.setSelectedIndex(0);
203
204     // Image upload
205     final ImageIcon[] uploadedImage = {null};
206     uploadBtn.addActionListener(e -> {
207         JFileChooser fc = new JFileChooser();
208         if (fc.showOpenDialog(frame) ==
JFileChooser.APPROVE_OPTION) {
209             ImageIcon icon = new ImageIcon(fc.
getSelectedFile().getAbsolutePath());
210             Image img = icon.getImage().
getScaledInstance(50, 60, Image.SCALE_SMOOTH);
211             uploadedImage[0] = new ImageIcon(img
);
212             imageLabel.setIcon(uploadedImage[0
]);
213         }
214     });

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215
216         // Dio za dodavanje karte
217         addBtn.addActionListener(e -> {
218             String name = (String) nameBox.
getSelectedItem();
219             String type = (String) typeBox.
getSelectedItem();
220             AttackInfo attackInfo = (AttackInfo)
attackBox.getSelectedItem();
221             String attack = attackInfo != null ?
attackInfo.attackName : "";
222             String damage = attackInfo != null ?
attackInfo.damage : "";
223             String rarity = (String) rarityBox.
getSelectedItem();
224             String effect = effectField.getText();
225             ImageIcon img = uploadedImage[0];
226             if (name == null || type == null ||
attack.isEmpty() || damage.isEmpty() || rarity ==
null || effect.isEmpty() || img == null) {
227                 JOptionPane.showMessageDialog(frame
, "Fill all fields and upload an image.");
228                 return;
229             }
230             Card card = new Card(name, type, attack
, damage, rarity, effect, img);
231             cards.add(card);
232             tableModel.addRow(new Object[]{name,
type, attack, damage, rarity, effect, img});
233             nameBox.setSelectedIndex(0); imageLabel.
setIcon(null); uploadedImage[0]=null;
234         });
235
236         // Dio za micanje karte
237         removeBtn.addActionListener(e -> {
238             int selectedRow = table.getSelectedRow
();
239             if (selectedRow != -1) {
240                 cards.remove(selectedRow);
241                 tableModel.removeRow(selectedRow);
242             } else {

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243             JOptionPane.showMessageDialog(frame
, "Please select a card to remove.");
244         }
245     });
246
247     // Filtering: ažuriranje napada kad se
dropdown promjeni
248     filterNameBox.addActionListener(e -> {
249         String selected = (String) filterNameBox
.getSelectedItemAt();
250         filterAttackBox.removeAllItems();
251         filterAttackBox.addItem("");
252         if (selected != null && ATTACKS.
containsKey(selected)) {
253             for (AttackInfo info : ATTACKS.get(
selected)) filterAttackBox.addItem(info.attackName);
254         }
255     });
256
257     // Filtriranje karata
258     filterBtn.addActionListener(e -> {
259         String fName = (String) filterNameBox.
getSelectedItem();
260         String fType = (String) filterTypeBox.
getSelectedItem();
261         String fAttack = (String)
filterAttackBox.getSelectedItem();
262         String fDamage = filterDamage.getText().
trim();
263         String fRarity = (String)
filterRarityBox.getSelectedItem();
264         String fEffect = filterEffect.getText().
trim().toLowerCase();
265         tableModel.setRowCount(0);
266         for (Card c : cards) {
267             boolean matches = (fName == null ||
fName.isEmpty() || c.name.equals(fName)) &&
268                 (fType == null || fType.
isEmpty() || c.type.equals(fType)) &&
269                 (fAttack == null || fAttack.
isEmpty() || c.attack.equals(fAttack)) &&

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270                (fDamage.isEmpty() || c.
damage.equals(fDamage)) &&
271                (fRarity == null || fRarity.
isEmpty() || c.rarity.equals(fRarity)) &&
272                (fEffect.isEmpty() || c.
effect.toLowerCase().contains(fEffect));
273                if (matches) {
274                    tableModel.addRow(new Object[]{c
.name, c.type, c.attack, c.damage, c.rarity, c.
effect, c.image});
275                }
276            }
277        });
278
279        // Resetiranje filtera
280        resetBtn.addActionListener(e -> {
281            filterNameBox.setSelectedIndex(0);
filterTypeBox.setSelectedIndex(0);
282            filterAttackBox.removeAllItems();
filterAttackBox.addItem("");
283            filterDamage.setText("");
filterRarityBox.setSelectedIndex(0); filterEffect.
setText("");
284            tableModel.setRowCount(0);
285            for (Card c : cards)
286                tableModel.addRow(new Object[]{c.
name, c.type, c.attack, c.damage, c.rarity, c.effect
, c.image});
287        });
288
289        // Dodavanje na panel sa backgroundom
290        backgroundPanel.add(inputPanel, BorderLayout
.NORTH);
291        backgroundPanel.add(scrollPane, BorderLayout
.CENTER);
292        backgroundPanel.add(filterPanel,
BorderLayout.SOUTH);
293
294        frame.setContentPane(backgroundPanel);
295        frame.setVisible(true);
296    }

```

```
297
298     public static void main(String[] args) {
299         SwingUtilities.invokeLater(
300             PokemonCardTracker::new);
301     }
302 }
```