Appendix

Source Code

Main.java

```java
package pos;

import java.awt.EventQueue;
import java.sql.Connection;
import java.sql.SQLException;

public class Main {

    public static void main(String[] args){
        EventQueue.invokeLater(new Runnable() {
            public void run() {
                try {
                    GuiLogin window = new GuiLogin();
                    window.setVisible();
                } catch (Exception e) {
                    e.printStackTrace();
                }
            }
        });
    }
}
```

GuiLogin.java

```java
package pos;

import java.awt.EventQueue;

import javax.swing.JFrame;
import java.awt.Color;
import javax.swing.JLabel;
import java.awt.BorderLayout;
```

```java
import javax.swing.JPanel;
import java.awt.Font;
import javax.swing.border.EmptyBorder;
import javax.swing.BoxLayout;
import java.awt.Component;
import javax.swing.SwingConstants;
import javax.swing.JTextField;
import javax.swing.JButton;
import java.awt.event.FocusAdapter;
import java.awt.event.FocusEvent;
import javax.swing.JPasswordField;
import java.awt.event.MouseAdapter;
import java.awt.event.MouseEvent;
import java.awt.SystemColor;
import javax.swing.UIManager;

public class GuiLogin {

    private JFrame loginWindow;
    private JTextField txtLogin;
    private JPasswordField passwordField;


    public void setVisible() {
        loginWindow.setVisible(true);
    }

    public GuiLogin() {
        initialize();
    }


    private void initialize() {

        Database access = new Database();
```

```java
loginWindow = new JFrame();
loginWindow.getContentPane().setForeground(Color.WHITE);
loginWindow.getContentPane().setBackground(new Color(51, 51, 51));
loginWindow.getContentPane().setLayout(null);

JLabel lblNewLabel = new JLabel("Welcome to the POS");
lblNewLabel.setBounds(6, 6, 586, 115);
lblNewLabel.setHorizontalAlignment(SwingConstants.CENTER);
lblNewLabel.setFont(new Font("Arial", Font.BOLD, 40));
lblNewLabel.setForeground(Color.WHITE);
loginWindow.getContentPane().add(lblNewLabel);

txtLogin = new JTextField();
txtLogin.setFont(new Font("Arial", Font.PLAIN, 15));
txtLogin.addFocusListener(new FocusAdapter() {
        @Override
        public void focusGained(FocusEvent e) {
                txtLogin.setText("");
        }
        @Override
        public void focusLost(FocusEvent e) {
                if(txtLogin.getText().isEmpty()) {
                        txtLogin.setText("Login");
                }
        }
});

txtLogin.setText("Login");
txtLogin.setBounds(184, 218, 238, 39);
loginWindow.getContentPane().add(txtLogin);
txtLogin.setColumns(10);

passwordField = new JPasswordField();
passwordField.addFocusListener(new FocusAdapter() {
```

```java
                @Override
                public void focusGained(FocusEvent e) {
                        passwordField.setText("");
                }
                @Override
                public void focusLost(FocusEvent e) {
                        if(passwordField.getText().isEmpty()) {
                                passwordField.setText("Haslo");
                        }
                }
        });
        passwordField.setText("Haslo");
        passwordField.setFont(new Font("Arial", Font.PLAIN, 15));
        passwordField.setBounds(184, 296, 238, 39);
        loginWindow.getContentPane().add(passwordField);


        JLabel lblNewLabel_1 = new JLabel("");
        lblNewLabel_1.setFont(new Font("Arial", Font.PLAIN, 17));
        lblNewLabel_1.setForeground(new Color(255, 0, 0));
        lblNewLabel_1.setBounds(171, 373, 295, 39);

        JButton btnNewButton = new JButton("Log in");
        btnNewButton.setForeground(new Color(0, 0, 0));
        btnNewButton.setFont(new Font("Arial", Font.BOLD, 20));
        btnNewButton.setBackground(new Color(102, 102, 102));
        btnNewButton.addMouseListener(new MouseAdapter() {
                @Override
                public void mouseClicked(MouseEvent e) {
                        if(access.Access(txtLogin.getText(), passwordField.getText())
== true) {
                                loginWindow.setVisible(false);
                                EventQueue.invokeLater(new Runnable() {
                                        public void run() {
                                                try {
```

```java
                                        if(access.adm == true) {
                                                GuiMainAdm window = new
GuiMainAdm();

                                                window.setVisible();
                                        }else {
                                                GuiMainEmp window = new
GuiMainEmp();

                                                window.setVisible();
                                        }
                                } catch (Exception e) {
                                        e.printStackTrace();
                                }
                        }
                });
                } else {
                        lblNewLabel_1.setText("Login error. Try again.");
                }

        }
});
btnNewButton.setBounds(184, 455, 238, 60);
loginWindow.getContentPane().add(btnNewButton);

JLabel lblZalogujSiZaby = new JLabel("Please log in to continue");
lblZalogujSiZaby.setHorizontalAlignment(SwingConstants.CENTER);
lblZalogujSiZaby.setForeground(Color.WHITE);
lblZalogujSiZaby.setFont(new Font("Arial", Font.BOLD, 25));
lblZalogujSiZaby.setBounds(6, 73, 586, 115);
loginWindow.getContentPane().add(lblZalogujSiZaby);


loginWindow.getContentPane().add(lblNewLabel_1);
loginWindow.setResizable(false);
loginWindow.setTitle("Astra POS v1.0");
loginWindow.setBackground(new Color(51, 51, 51));
```

```java
            loginWindow.setSize(600,618);
            loginWindow.setLocationRelativeTo(null);
            loginWindow.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    }
}
```

GuiMainAdm.java

```java
package pos;


import java.awt.EventQueue;



import javax.swing.JFrame;
import java.awt.Color;
import javax.swing.JPanel;
import javax.swing.JButton;
import java.awt.BorderLayout;
import javax.swing.JDesktopPane;
import javax.swing.JLabel;
import javax.swing.JTextField;
import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;
import java.awt.Font;
import javax.swing.JTextArea;

public class GuiMainAdm {

    private JFrame mainWindow;
    private JTextField textField;
    static Double sum = 0.0;

    public void setVisible() {
        mainWindow.setVisible(true);
    }

    public void CloseFrame() {
```

```java
            mainWindow.dispose();
    }
    public GuiMainAdm() {
            initialize();
    }


    private void initialize() {

            Database database = new Database();


            mainWindow = new JFrame();
            mainWindow.setTitle("Astra POS v1.0");
            mainWindow.getContentPane().setForeground(Color.WHITE);
            mainWindow.getContentPane().setBackground(Color.BLACK);
            mainWindow.getContentPane().setLayout(new BorderLayout(0, 0));

            JDesktopPane desktopPane = new JDesktopPane();
            desktopPane.setBackground(Color.BLACK);
            mainWindow.getContentPane().add(desktopPane, BorderLayout.CENTER);

            JPanel panel = new JPanel();
            panel.setBackground(Color.GRAY);
            panel.setBounds(807, 6, 187, 460);
            desktopPane.add(panel);
            panel.setLayout(null);



            JButton btnNewButton_3 = new JButton("Manage accounts");
            btnNewButton_3.setFont(new Font("Arial", Font.PLAIN, 15));
            btnNewButton_3.addActionListener(new ActionListener() {
                    public void actionPerformed(ActionEvent e) {
                            mainWindow.dispose();
```

```java
                        EventQueue.invokeLater(new Runnable() {
                            public void run() {
                                try {
                                    GuiAccounts window = new
GuiAccounts();

                                    window.setVisible();
                                } catch (Exception e) {
                                    e.printStackTrace();
                                }
                            }

                        });


        }
    });
    btnNewButton_3.setBounds(6, 167, 175, 65);
    panel.add(btnNewButton_3);

    JButton btnNewButton_4 = new JButton("Log out");
    btnNewButton_4.addActionListener(new ActionListener() {
        public void actionPerformed(ActionEvent e) {
            mainWindow.dispose();
            database.logOut();
            EventQueue.invokeLater(new Runnable() {
                public void run() {
                    try {
                        GuiLogin window = new GuiLogin();
                        window.setVisible();
                    } catch (Exception e) {
                        e.printStackTrace();
                    }
                }
```

```java
				});


		}
	});
	btnNewButton_4.setFont(new Font("Arial", Font.PLAIN, 15));
	btnNewButton_4.setBounds(6, 244, 175, 65);
	panel.add(btnNewButton_4);


	JButton btnEndDay = new JButton("End Day");
	btnEndDay.addActionListener(new ActionListener() {
			public void actionPerformed(ActionEvent e) {
					EventQueue.invokeLater(new Runnable() {
							public void run() {
									try {
											mainWindow.dispose();
											count window = new count();
											window.setVisible();
									} catch (Exception e) {
											e.printStackTrace();
									}
							}
					});
			}
	});
	btnEndDay.setFont(new Font("Arial", Font.PLAIN, 15));
	btnEndDay.setBounds(6, 90, 175, 65);
	panel.add(btnEndDay);


	JPanel panel_1 = new JPanel();
	panel_1.setLayout(null);
	panel_1.setBackground(Color.GRAY);
	panel_1.setBounds(10, 316, 789, 150);
	desktopPane.add(panel_1);
```

```java
textField = new JTextField();
textField.setFont(new Font("Arial", Font.PLAIN, 15));
textField.setBounds(6, 47, 777, 71);
panel_1.add(textField);
textField.setColumns(10);

JLabel lblNewLabel_1 = new JLabel("Scan the barcode:");
lblNewLabel_1.setForeground(Color.BLACK);
lblNewLabel_1.setFont(new Font("Arial", Font.BOLD, 20));
lblNewLabel_1.setBounds(6, 6, 211, 41);
panel_1.add(lblNewLabel_1);


JPanel panel_2 = new JPanel();
panel_2.setLayout(null);
panel_2.setBackground(Color.WHITE);
panel_2.setBounds(10, 11, 785, 293);
desktopPane.add(panel_2);

JLabel lblNewLabel = new JLabel("Zalogowano jako:");
lblNewLabel.setText("Logged as: "+database.Display());
lblNewLabel.setBackground(new Color(102, 102, 102));
lblNewLabel.setFont(new Font("Arial", Font.PLAIN, 20));
lblNewLabel.setBounds(6, 6, 773, 38);
panel_2.add(lblNewLabel);

JTextArea textArea = new JTextArea();
textArea.setFont(new Font("Arial", Font.PLAIN, 17));
textArea.setEditable(false);
textArea.setBounds(16, 56, 505, 204);
panel_2.add(textArea);
```

```java
JTextArea textArea_1 = new JTextArea();
textArea_1.setEditable(false);
textArea_1.setFont(new Font("Arial", Font.PLAIN, 17));
textArea_1.setBounds(662, 56, 117, 204);
panel_2.add(textArea_1);

JLabel lblNewLabel_2 = new JLabel("");
lblNewLabel_2.setFont(new Font("Arial", Font.PLAIN, 15));
lblNewLabel_2.setBounds(662, 257, 85, 30);
panel_2.add(lblNewLabel_2);

JLabel lblNewLabel_2_1 = new JLabel("Sum:");
lblNewLabel_2_1.setFont(new Font("Arial", Font.PLAIN, 15));
lblNewLabel_2_1.setBounds(611, 257, 49, 30);
panel_2.add(lblNewLabel_2_1);


JButton btnNewButton_1 = new JButton("Add Product");
btnNewButton_1.addActionListener(new ActionListener() {
        public void actionPerformed(ActionEvent e) {
                textArea.append(database.barScanner(textField.getText())
+"\n");

textArea_1.append(String.valueOf(database.getPrice(textField.getText())+ " zł\n"));
                sum = sum + (database.getPrice(textField.getText()));
                lblNewLabel_2.setText(String.valueOf(sum) + " zł");
                textField.setText(null);
        }
});
btnNewButton_1.setBounds(600, 6, 158, 38);
panel_1.add(btnNewButton_1);

JButton btnNewButton = new JButton("Finalize Transaction");
btnNewButton.addActionListener(new ActionListener() {
        public void actionPerformed(ActionEvent e) {
```

```java
                    EventQueue.invokeLater(new Runnable() {
                            public void run() {
                                    try {
                                            Finalize window = new Finalize();
                                            window.setVisible();
                                    } catch (Exception e) {
                                            e.printStackTrace();
                                    }
                            }
                    });
                    textArea.setText(null);
                    textArea_1.setText(null);
            }
    });
    btnNewButton.setFont(new Font("Arial", Font.PLAIN, 15));
    btnNewButton.setBounds(6, 6, 175, 65);
    panel.add(btnNewButton);

    mainWindow.setResizable(false);
    mainWindow.setSize(1000,500);
    mainWindow.setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
    mainWindow.setLocationRelativeTo(null);


    }
}
GuiMainEmp.java
package pos;

import java.awt.EventQueue;

import javax.swing.JFrame;
import java.awt.Color;
import javax.swing.JPanel;
import javax.swing.JTextArea;
```

```java
import javax.swing.JButton;
import javax.swing.JLayeredPane;
import java.awt.BorderLayout;
import javax.swing.JDesktopPane;
import javax.swing.JLabel;
import javax.swing.JTextField;
import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;
import java.awt.Font;

public class GuiMainEmp{

        private JFrame mainWindow;
        private JTextField textField;
        static Double sum = 0.0;

        public void setVisible() {
                mainWindow.setVisible(true);
        }

        public void CloseFrame() {
                mainWindow.dispose();
        }
        public GuiMainEmp() {
                initialize();
        }


        private void initialize() {

                Database database = new Database();


                mainWindow = new JFrame();
                mainWindow.setTitle("Astra POS v1.0");
```

```java
mainWindow.getContentPane().setForeground(Color.WHITE);
mainWindow.getContentPane().setBackground(Color.BLACK);
mainWindow.getContentPane().setLayout(new BorderLayout(0, 0));

JDesktopPane desktopPane = new JDesktopPane();
desktopPane.setBackground(Color.BLACK);
mainWindow.getContentPane().add(desktopPane, BorderLayout.CENTER);

JPanel panel = new JPanel();
panel.setBackground(Color.GRAY);
panel.setBounds(807, 6, 187, 460);
desktopPane.add(panel);
panel.setLayout(null);

JButton btnNewButton_4 = new JButton("Log out");
btnNewButton_4.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        mainWindow.dispose();
        database.logOut();
        EventQueue.invokeLater(new Runnable() {
            public void run() {
                try {
                    GuiLogin window = new GuiLogin();
                    window.setVisible();
                } catch (Exception e) {
                    e.printStackTrace();
                }
            }
        });

    }
```

```java
		});
		btnNewButton_4.setFont(new Font("Arial", Font.PLAIN, 15));
		btnNewButton_4.setBounds(6, 244, 175, 65);
		panel.add(btnNewButton_4);

		JButton btnEndDay = new JButton("End Day");
		btnEndDay.addActionListener(new ActionListener() {
			public void actionPerformed(ActionEvent e) {
				EventQueue.invokeLater(new Runnable() {
					public void run() {
						try {
							mainWindow.dispose();
							count2 window = new count2();
							window.setVisible();
						} catch (Exception e) {
							e.printStackTrace();
						}
					}
				});
			}
		});
		btnEndDay.setFont(new Font("Arial", Font.PLAIN, 15));
		btnEndDay.setBounds(6, 90, 175, 65);
		panel.add(btnEndDay);

		JPanel panel_1 = new JPanel();
		panel_1.setLayout(null);
		panel_1.setBackground(Color.GRAY);
		panel_1.setBounds(10, 316, 789, 150);
		desktopPane.add(panel_1);




		textField = new JTextField();
		textField.setFont(new Font("Arial", Font.PLAIN, 15));
```

```java
textField.setBounds(6, 47, 777, 71);
panel_1.add(textField);
textField.setColumns(10);

JLabel lblNewLabel_1 = new JLabel("Scan the barcode:");
lblNewLabel_1.setForeground(Color.BLACK);
lblNewLabel_1.setFont(new Font("Arial", Font.BOLD, 20));
lblNewLabel_1.setBounds(6, 6, 211, 41);
panel_1.add(lblNewLabel_1);




JPanel panel_2 = new JPanel();
panel_2.setLayout(null);
panel_2.setBackground(Color.WHITE);
panel_2.setBounds(10, 11, 785, 293);
desktopPane.add(panel_2);

JLabel lblNewLabel = new JLabel("Zalogowano jako:");
lblNewLabel.setText("Logged as: "+database.Display());
lblNewLabel.setBackground(new Color(102, 102, 102));
lblNewLabel.setFont(new Font("Arial", Font.PLAIN, 20));
lblNewLabel.setBounds(6, 6, 773, 38);
panel_2.add(lblNewLabel);

JTextArea textArea = new JTextArea();
textArea.setFont(new Font("Arial", Font.PLAIN, 17));
textArea.setEditable(false);
textArea.setBounds(16, 56, 505, 204);
panel_2.add(textArea);

JTextArea textArea_1 = new JTextArea();
textArea_1.setEditable(false);
textArea_1.setFont(new Font("Arial", Font.PLAIN, 17));
textArea_1.setBounds(662, 56, 117, 204);
```

```java
			panel_2.add(textArea_1);

			JLabel lblNewLabel_2 = new JLabel("");
			lblNewLabel_2.setFont(new Font("Arial", Font.PLAIN, 15));
			lblNewLabel_2.setBounds(662, 257, 85, 30);
			panel_2.add(lblNewLabel_2);

			JLabel lblNewLabel_2_1 = new JLabel("Sum:");
			lblNewLabel_2_1.setFont(new Font("Arial", Font.PLAIN, 15));
			lblNewLabel_2_1.setBounds(611, 257, 49, 30);
			panel_2.add(lblNewLabel_2_1);


			JButton btnNewButton_1 = new JButton("Add Product");
			btnNewButton_1.addActionListener(new ActionListener() {
				public void actionPerformed(ActionEvent e) {
					textArea.append(database.barScanner(textField.getText())
+"\n");

textArea_1.append(String.valueOf(database.getPrice(textField.getText())+ " zł\n"));
					sum = sum + (database.getPrice(textField.getText()));
					lblNewLabel_2.setText(String.valueOf(sum) + " zł");
					textField.setText(null);
				}
			});
			btnNewButton_1.setBounds(600, 6, 158, 38);
			panel_1.add(btnNewButton_1);

			JButton btnNewButton = new JButton("Finalize Transaction");
			btnNewButton.addActionListener(new ActionListener() {
				public void actionPerformed(ActionEvent e) {
					EventQueue.invokeLater(new Runnable() {
						public void run() {
							try {
								Finalize2 window = new Finalize2();
```

```java
                                window.setVisible();
                        } catch (Exception e) {
                                e.printStackTrace();
                        }
                }
        });
        textArea.setText(null);
        textArea_1.setText(null);
    }
});
btnNewButton.setFont(new Font("Arial", Font.PLAIN, 15));
btnNewButton.setBounds(6, 6, 175, 65);
panel.add(btnNewButton);

mainWindow.setResizable(false);
mainWindow.setSize(1000,500);
mainWindow.setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
mainWindow.setLocationRelativeTo(null);


    }
}
```
GuiAccounts.java
```java
package pos;

import java.awt.EventQueue;

import javax.swing.JFrame;
import java.awt.Color;
import javax.swing.JPanel;
import javax.swing.JButton;
import javax.swing.JLayeredPane;
import java.awt.BorderLayout;
import javax.swing.JDesktopPane;
import javax.swing.JLabel;
```

```java
import javax.swing.JTextField;
import javax.swing.table.DefaultTableModel;

import java.awt.event.ActionListener;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.Statement;
import java.awt.event.ActionEvent;
import java.awt.Font;
import javax.swing.JTable;
import javax.swing.JComboBox;
import javax.swing.JList;
import javax.swing.JTextPane;
import javax.swing.SwingConstants;
import javax.swing.JTextArea;

public class GuiAccounts {

	private JFrame mainWindow;
	private JTable table_1;
	String[] columnNames = new String[4];
	String[] gap = new String[4];
	String[] row1 = new String[4];
	String[] row2 = new String[4];
	String[] row3 = new String[4];
	String[] row4 = new String[4];
	String[] row5 = new String[4];

	public void setVisible() {
		mainWindow.setVisible(true);
	}

	public void CloseFrame() {
		mainWindow.dispose();
	}
```

```java
public GuiAccounts() {
        initialize();
}

private void initialize() {

        Database database = new Database();

        listAccount list = new listAccount();


        mainWindow = new JFrame();
        mainWindow.setTitle("Astra POS v1.0");
        mainWindow.getContentPane().setForeground(Color.WHITE);
        mainWindow.getContentPane().setBackground(Color.BLACK);
        mainWindow.getContentPane().setLayout(new BorderLayout(0, 0));

        JDesktopPane desktopPane = new JDesktopPane();
        desktopPane.setBackground(Color.BLACK);
        mainWindow.getContentPane().add(desktopPane, BorderLayout.CENTER);

        JPanel panel = new JPanel();
        panel.setBackground(Color.GRAY);
        panel.setBounds(807, 6, 187, 328);
        desktopPane.add(panel);
        panel.setLayout(null);

        JButton btnNewButton = new JButton("Add account");
        btnNewButton.addActionListener(new ActionListener() {
                public void actionPerformed(ActionEvent e) {
                        EventQueue.invokeLater(new Runnable() {
                                public void run() {
                                        try {
                                                addAcount window = new addAcount();
                                                window.setVisible();
```

```java
				} catch (Exception e) {
					e.printStackTrace();
				}
			}
		});
	}
});
btnNewButton.setFont(new Font("Arial", Font.PLAIN, 15));
btnNewButton.setBounds(6, 37, 175, 65);
panel.add(btnNewButton);

JButton btnAsortytment = new JButton("Delete account");
btnAsortytment.addActionListener(new ActionListener() {
	public void actionPerformed(ActionEvent e) {
		EventQueue.invokeLater(new Runnable() {
			public void run() {
				try {
					delAccount window = new delAccount();
					window.setVisible();
				} catch (Exception e) {
					e.printStackTrace();
				}
			}
		});
	}
});
btnAsortytment.setFont(new Font("Arial", Font.PLAIN, 15));
btnAsortytment.setBounds(6, 114, 175, 65);
panel.add(btnAsortytment);

JButton btnNewButton_3 = new JButton("Back");
btnNewButton_3.setFont(new Font("Arial", Font.PLAIN, 15));
btnNewButton_3.addActionListener(new ActionListener() {
	public void actionPerformed(ActionEvent e) {
		CloseFrame();
```

```java
                    EventQueue.invokeLater(new Runnable() {
                        public void run() {
                            try {
                                GuiMainAdm window = new
GuiMainAdm();

                                window.setVisible();
                            } catch (Exception e) {
                                e.printStackTrace();
                            }
                        }
                    });
            }
    });
    btnNewButton_3.setBounds(6, 191, 175, 65);
    panel.add(btnNewButton_3);


    JPanel panel_2 = new JPanel();
    panel_2.setLayout(null);
    panel_2.setBackground(new Color(255, 255, 255));
    panel_2.setBounds(10, 11, 785, 323);
    desktopPane.add(panel_2);



    JLabel lblNewLabel = new JLabel("List of Accounts");
    lblNewLabel.setHorizontalAlignment(SwingConstants.CENTER);
    lblNewLabel.setFont(new Font("Arial", Font.BOLD, 20));
    lblNewLabel.setBounds(6, 6, 773, 26);
    panel_2.add(lblNewLabel);


    String[] columnNames = {"","Surname","Name","Login","Account type"};
    String[] gap = {"","","","",""};
    String[][] data = {
            {"","Surname","Name","Login","Account type"},
            {"","","","",""},
```

```java
        {"1.",list.listSurname(1),list.listName(1),list.listLogin(1),list.listType(1)},
                        {"","","","",""},


        {"2.",list.listSurname(2),list.listName(2),list.listLogin(2),list.listType(2)},
                        {"","","","",""},


        {"3.",list.listSurname(3),list.listName(3),list.listLogin(3),list.listType(3)},
                        {"","","","",""},


        {"4.",list.listSurname(4),list.listName(4),list.listLogin(4),list.listType(4)},
                };


                table_1 = new JTable(data,columnNames);
                table_1.setRowHeight(20);
                table_1.setFont(new Font("Arial", Font.PLAIN, 20));
                table_1.setBounds(16, 44, 763, 238);
                panel_2.add(table_1);




                mainWindow.setResizable(false);
                mainWindow.setSize(1000,375);
                mainWindow.setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
                mainWindow.setLocationRelativeTo(null);


        }
}
```

listAccount.java

```java
package pos;

import java.sql.*;
import java.util.ArrayList;
import java.util.Vector;
```

```java
import javax.swing.*;
import javax.swing.table.DefaultTableModel;

public class listAccount  {

        public String listName(int i)  {
                String name = null;
                Connection conn = null;
                ResultSet rs = null;
                try {
                        Class.forName("org.postgresql.Driver");
                conn = DriverManager.getConnection("jdbc:postgresql://localhost:5432/
pos1", "postgres", "admin");
                }catch(Exception e) {
            System.out.print(e);
                }

                try {

                        Statement st = conn.createStatement();
                        String sql = ("SELECT name FROM logowanie where id = "+ i);
                        rs = st.executeQuery(sql);

                        while(rs.next()) {
                                name = rs.getString("name");
                        }

                } catch(Exception e) {


                }
                finally {
                        try {
                                rs.close();
                        } catch (SQLException e) {
                                e.printStackTrace();
                        }
```

```java
                    try {
                        conn.close();
                    } catch (SQLException e) {
                        e.printStackTrace();
                    }finally {
                        try {
                            rs.close();
                        } catch (SQLException e) {
                            e.printStackTrace();
                        }
                        try {
                            conn.close();
                        } catch (SQLException e) {
                            e.printStackTrace();
                        }

                    }

            }

            return name;
        }

    public String listSurname(int i) {
            String surname = null;
            Connection conn = null;
            ResultSet rs = null;
            try {
                    Class.forName("org.postgresql.Driver");
            conn = DriverManager.getConnection("jdbc:postgresql://localhost:5432/
pos1", "postgres", "admin");
                    }catch(Exception e) {
                System.out.print(e);
                    }
```

```java
        try {
                Statement st = conn.createStatement();
                String sql = ("SELECT surname FROM logowanie where id = "+ i);
                rs = st.executeQuery(sql);

                while(rs.next()) {
                        surname = rs.getString("surname");
                }

        } catch(Exception e) {

        }finally {
                try {
                        rs.close();
                } catch (SQLException e) {
                        e.printStackTrace();
                }
                try {
                        conn.close();
                } catch (SQLException e) {
                        e.printStackTrace();
                }

        }
        return surname;
    }
    public String listLogin(int i) {
        String login = null;
        Connection conn = null;
        ResultSet rs = null;
        try {
                Class.forName("org.postgresql.Driver");
        conn = DriverManager.getConnection("jdbc:postgresql://localhost:5432/
pos1", "postgres", "admin");
```

```java
			}catch(Exception e) {
	System.out.print(e);
		}

		try {
				Statement st = conn.createStatement();
				String sql = ("SELECT login FROM logowanie where id = "+ i);
				rs = st.executeQuery(sql);

				while(rs.next()) {
						login = rs.getString("login");
				}

		} catch(Exception e) {

		}finally {
				try {
						rs.close();
				} catch (SQLException e) {
						e.printStackTrace();
				}
				try {
						conn.close();
				} catch (SQLException e) {
						e.printStackTrace();
				}

		}
		return login;
}
public String listType(int i) {
		String type = "";
		Connection conn = null;
		ResultSet rs = null;
		try {
```

```java
                Class.forName("org.postgresql.Driver");
            conn = DriverManager.getConnection("jdbc:postgresql://localhost:5432/
pos1", "postgres", "admin");
                }catch(Exception e) {
        System.out.print(e);
                }


                try {

                        Statement st = conn.createStatement();
                        String sql = ("SELECT adminmode FROM logowanie where id = "+ i);
                        rs = st.executeQuery(sql);


                        while(rs.next()) {
                                if(rs.getBoolean("adminmode") == true) {
                                        type ="Admin";
                                }else {
                                        type = "User";
                                }
                        }


                } catch(Exception e) {

                }finally {
                        try {
                                rs.close();
                        } catch (SQLException e) {
                                e.printStackTrace();
                        }
                        try {
                                conn.close();
                        } catch (SQLException e) {
                                e.printStackTrace();
                        }

                }
```

```java
            return type;
        }
}
```

addAccount.java

```java
package pos;

import java.awt.EventQueue;



import javax.swing.JFrame;
import java.awt.Color;
import javax.swing.JLabel;
import java.awt.Font;
import javax.swing.JTextField;
import javax.swing.JButton;
import javax.swing.JToggleButton;
import javax.swing.JPasswordField;
import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;

public class addAcount {

        private JFrame frmAstraPosV;
        private JTextField textField;
        private JTextField textField_1;
        private JTextField textField_2;
        private JPasswordField passwordField;


        public addAcount() {
                initialize();
        }

        public void setVisible() {
                frmAstraPosV.setVisible(true);
```

```java
    }

    private void initialize() {
        Database database = new Database();
        frmAstraPosV = new JFrame();
        frmAstraPosV.setTitle("Astra POS v1.0");
        frmAstraPosV.setResizable(false);
        frmAstraPosV.getContentPane().setBackground(new Color(51, 51, 51));
        frmAstraPosV.getContentPane().setLayout(null);

        JLabel lblNewLabel = new JLabel("Name");
        lblNewLabel.setForeground(Color.WHITE);
        lblNewLabel.setFont(new Font("Arial", Font.PLAIN, 15));
        lblNewLabel.setBounds(16, 18, 129, 33);
        frmAstraPosV.getContentPane().add(lblNewLabel);

        JLabel lblNazwisko = new JLabel("Surname");
        lblNazwisko.setForeground(Color.WHITE);
        lblNazwisko.setFont(new Font("Arial", Font.PLAIN, 15));
        lblNazwisko.setBounds(16, 52, 129, 33);
        frmAstraPosV.getContentPane().add(lblNazwisko);

        JLabel lblLogin = new JLabel("Login");
        lblLogin.setForeground(Color.WHITE);
        lblLogin.setFont(new Font("Arial", Font.PLAIN, 15));
        lblLogin.setBounds(16, 97, 129, 33);
        frmAstraPosV.getContentPane().add(lblLogin);

        JLabel lblHaso = new JLabel("Password");
        lblHaso.setForeground(Color.WHITE);
        lblHaso.setFont(new Font("Arial", Font.PLAIN, 15));
        lblHaso.setBounds(16, 142, 129, 33);
        frmAstraPosV.getContentPane().add(lblHaso);
```

```java
JLabel lblTypKonta = new JLabel("Account type");
lblTypKonta.setForeground(Color.WHITE);
lblTypKonta.setFont(new Font("Arial", Font.PLAIN, 15));
lblTypKonta.setBounds(16, 187, 129, 33);
frmAstraPosV.getContentPane().add(lblTypKonta);

textField = new JTextField();
textField.setBounds(157, 21, 287, 26);
frmAstraPosV.getContentPane().add(textField);
textField.setColumns(10);

textField_1 = new JTextField();
textField_1.setColumns(10);
textField_1.setBounds(157, 55, 287, 26);
frmAstraPosV.getContentPane().add(textField_1);

textField_2 = new JTextField();
textField_2.setColumns(10);
textField_2.setBounds(157, 100, 287, 26);
frmAstraPosV.getContentPane().add(textField_2);

JToggleButton tglbtnNewToggleButton = new JToggleButton("Admin");
tglbtnNewToggleButton.addActionListener(new ActionListener() {
        public void actionPerformed(ActionEvent e) {
        }
});
tglbtnNewToggleButton.setFont(new Font("Arial", Font.PLAIN, 15));
tglbtnNewToggleButton.setBounds(213, 190, 161, 29);
frmAstraPosV.getContentPane().add(tglbtnNewToggleButton);

passwordField = new JPasswordField();
passwordField.setBounds(157, 145, 287, 26);

JButton btnNewButton = new JButton("Create");
btnNewButton.addActionListener(new ActionListener() {
```

```java
                    public void actionPerformed(ActionEvent e) {
                        boolean b = false;
                        if(tglbtnNewToggleButton.isSelected() == true) {
                            b = true;
                        }
                        database.addAccount(textField_2.getText(),
passwordField.getText(), textField.getText(), textField_1.getText(), b);
                        frmAstraPosV.dispose();
                    }
            });
            btnNewButton.setFont(new Font("Arial", Font.PLAIN, 15));
            btnNewButton.setBounds(157, 228, 117, 29);
            frmAstraPosV.getContentPane().add(btnNewButton);


            frmAstraPosV.getContentPane().add(passwordField);
            frmAstraPosV.setBounds(100, 100, 450, 300);
            frmAstraPosV.setLocationRelativeTo(null);
            frmAstraPosV.setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
        }
}
```

delAccount.java

```java
package pos;


import java.awt.EventQueue;


import javax.swing.JFrame;
import java.awt.Color;
import javax.swing.JLabel;
import java.awt.Font;
import javax.swing.JTextField;
import javax.swing.JButton;
import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;
```

```java
public class delAccount {

    private JFrame frmAstraPosV;
    private JTextField textField;


    public delAccount() {
        initialize();
    }

    public void setVisible() {
        frmAstraPosV.setVisible(true);
    }


    private void initialize() {
        Database database = new Database();
        frmAstraPosV = new JFrame();
        frmAstraPosV.setTitle("Astra POS v1.0");
        frmAstraPosV.setResizable(false);
        frmAstraPosV.getContentPane().setBackground(new Color(51, 51, 51));
        frmAstraPosV.getContentPane().setLayout(null);

        JButton btnNewButton = new JButton("Delete");
        btnNewButton.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent e) {
                database.delAccount(textField.getText());
                frmAstraPosV.dispose();
            }
        });
        btnNewButton.setFont(new Font("Arial", Font.PLAIN, 15));
        btnNewButton.setBounds(160, 60, 117, 29);
        frmAstraPosV.getContentPane().add(btnNewButton);
```

```java
        JLabel lblNewLabel = new JLabel("Login:");
        lblNewLabel.setForeground(new Color(255, 255, 255));
        lblNewLabel.setFont(new Font("Arial", Font.PLAIN, 15));
        lblNewLabel.setBounds(43, 25, 68, 29);
        frmAstraPosV.getContentPane().add(lblNewLabel);

        textField = new JTextField();
        textField.setFont(new Font("Arial", Font.PLAIN, 15));
        textField.setBounds(122, 26, 251, 26);
        frmAstraPosV.getContentPane().add(textField);
        textField.setColumns(10);
        frmAstraPosV.setBounds(100, 100, 381, 128);
        frmAstraPosV.setLocationRelativeTo(null);
        frmAstraPosV.setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
    }
}
```

Database.java

```java
package pos;

import java.sql.*;

public class Database {

    boolean adm = false;
    boolean check = false;
    int id = 2;

    public boolean Access(String linput, String pinput) {

        Connection conn = null;
        ResultSet rs = null;
        try {
            Class.forName("org.postgresql.Driver");
            conn = DriverManager.getConnection("jdbc:postgresql://localhost:5432/
pos1", "postgres", "admin");
```

```java
            }catch(Exception e) {
        System.out.print(e);


            }

            try {
                    Statement st = conn.createStatement();
                    String sql = ("SELECT login, password, adminMode, logged FROM
logowanie");

                    rs = st.executeQuery(sql);



                    while(rs.next()) {
                            String l = rs.getString("login");
                            String p = rs.getString("password");
                            adm = rs.getBoolean("adminMode");


                            if(linput.equals(l) && pinput.equals(p)) {
                                    st.executeUpdate("UPDATE logowanie SET logged =
true WHERE login ='"+ l +"'");

                                    check = true;

                            }
                    }
            }catch (SQLException e) {

                    System.out.print(e);
            }finally {
                    try {
                            rs.close();
                    } catch (SQLException e) {
                            e.printStackTrace();
                    }
                    try {
                            conn.close();
                    } catch (SQLException e) {
```

```java
                        e.printStackTrace();
                }


            }
            return check;
    }


    public void logOut() {
            Connection conn = null;
            try {
                    Class.forName("org.postgresql.Driver");
            conn = DriverManager.getConnection("jdbc:postgresql://localhost:5432/
pos1", "postgres", "admin");
            }catch(Exception e) {
        System.out.print(e);
            }


            try {
                    Statement st = conn.createStatement();
                    String sql = ("SELECT logged FROM logowanie");
                    ResultSet rs = st.executeQuery(sql);
                    while(rs.next()) {
                            st.executeUpdate("UPDATE logowanie SET logged = false
WHERE logged = true");
                    }
            }catch(Exception e) {
            }
    }
    public String Display() {
            String display = null;
            Connection conn = null;
            ResultSet rs = null;
            try {
                    Class.forName("org.postgresql.Driver");
```

```java
            conn = DriverManager.getConnection("jdbc:postgresql://localhost:5432/
pos1", "postgres", "admin");
            }catch(Exception e) {
        System.out.print(e);


            }

            try {
                Statement st = conn.createStatement();
                String sql = ("SELECT name, surname FROM logowanie WHERE
logged = true");
                rs = st.executeQuery(sql);

                while(rs.next()) {
                    String name = rs.getString("name");
                    String surname = rs.getString("surname");
                    display = surname + " " + name;
                }
            } catch(Exception e) {
                System.out.print(e);
            }finally {
                try {
                    rs.close();
                } catch (SQLException e) {
                    e.printStackTrace();
                }
                try {
                    conn.close();
                } catch (SQLException e) {
                    e.printStackTrace();
                }

            }
            return display;
        }
```

```java
public void addAccount(String log, String pas, String name, String sur, boolean ad)
{
        Connection conn = null;
        try {
                Class.forName("org.postgresql.Driver");
            conn = DriverManager.getConnection("jdbc:postgresql://localhost:5432/
pos1", "postgres", "admin");
        }catch(Exception e) {
    System.out.print(e);

        }

        try {
                id=id+1;
                Statement st = conn.createStatement();


                st.executeUpdate("INSERT into logowanie (login, password,
adminmode, name, surname, logged, id) VALUES ('"+log+"', '"+pas+"', "+ad+",
'"+name+"', '"+ sur +"', "+false+","+id+")");


        }catch(Exception e) {

        }finally {
                try {
                        conn.close();
                } catch (SQLException e) {
                        e.printStackTrace();
                }

        }
    }
```

```java
public void delAccount(String log) {
    Connection conn = null;
    try {
        Class.forName("org.postgresql.Driver");
        conn = DriverManager.getConnection("jdbc:postgresql://localhost:5432/pos1", "postgres", "admin");
    }catch(Exception e) {
        System.out.print(e);

    }

    try {
        id=id-1;
        Statement st = conn.createStatement();
        st.executeUpdate("DELETE FROM logowanie WHERE login ='"+log+"'");

        ;
    }catch(Exception e) {

    }finally {
        try {
            conn.close();
        } catch (SQLException e) {
            e.printStackTrace();
        }

    }
}

public String barScanner(String n) {
    String bar = null;
    Connection conn = null;
    ResultSet rs = null;
    int i = -1;
```

```java
            try {
                    Class.forName("org.postgresql.Driver");
            conn = DriverManager.getConnection("jdbc:postgresql://localhost:5432/
pos1", "postgres", "admin");
                }catch(Exception e) {
        System.out.print(e);

                }

                try {
                        Statement st = conn.createStatement();
                        String sql = ("SELECT productname, amount FROM stock WHERE
barcode ='"+n+"'");
                        rs = st.executeQuery(sql);

                        while(rs.next()) {
                                bar = rs.getString("productname");
                                st.executeUpdate("UPDATE stock SET amount = amount +"+ i
+ "WHERE barcode = '"+n+"'");
                        }
                }catch(Exception e) {

                }finally {
                        try {
                                conn.close();
                        } catch (SQLException e) {
                                e.printStackTrace();
                        }

                }

                return bar;
        }

        public Double getPrice(String n) {
```

```java
            double bar = 0;
            Connection conn = null;
            ResultSet rs = null;
            try {
                    Class.forName("org.postgresql.Driver");
            conn = DriverManager.getConnection("jdbc:postgresql://localhost:5432/
pos1", "postgres", "admin");
            }catch(Exception e) {
        System.out.print(e);

            }

            try {
                    Statement st = conn.createStatement();
                    String sql = ("SELECT price FROM stock WHERE barcode ='"+n+"'");
                    rs = st.executeQuery(sql);

                    while(rs.next()) {
                            bar = rs.getDouble("price");
                    }
            }catch(Exception e) {

            }finally {
                    try {
                            conn.close();
                    } catch (SQLException e) {
                            e.printStackTrace();
                    }

            }


            return bar;
```

```java
        }

        public void cash(Double sum) {
                Connection conn = null;
                try {
                        Class.forName("org.postgresql.Driver");
                conn = DriverManager.getConnection("jdbc:postgresql://localhost:5432/
pos1", "postgres", "admin");
                }catch(Exception e) {
        System.out.print(e);
                }

                try {
                        Statement st = conn.createStatement();
                        String sql = ("SELECT cash FROM payment");
                        ResultSet rs = st.executeQuery(sql);
                        while(rs.next()) {
                                st.executeUpdate("UPDATE payment SET cash = cash
+"+sum+" WHERE id = 1");
                        }
                }catch(Exception e) {
                }
        }

        public void card(Double sum) {
                Connection conn = null;
                try {
                        Class.forName("org.postgresql.Driver");
                conn = DriverManager.getConnection("jdbc:postgresql://localhost:5432/
pos1", "postgres", "admin");
                }catch(Exception e) {
        System.out.print(e);
                }

                try {
```

```java
                Statement st = conn.createStatement();
                String sql = ("SELECT card FROM payment");
                ResultSet rs = st.executeQuery(sql);
                while(rs.next()) {
                        st.executeUpdate("UPDATE payment SET card = card
+"+sum+" WHERE id = 1");
                }
            }catch(Exception e) {
            }
        }


        public Double checkCash(Double sum) {
                Double diff = 0.0;
                Connection conn = null;
                try {
                        Class.forName("org.postgresql.Driver");
                conn = DriverManager.getConnection("jdbc:postgresql://localhost:5432/
pos1", "postgres", "admin");
                }catch(Exception e) {
            System.out.print(e);
                }

                try {
                        Statement st = conn.createStatement();
                        String sql = ("SELECT cash FROM payment");
                        ResultSet rs = st.executeQuery(sql);
                        while(rs.next()) {
                                diff = sum - rs.getDouble("cash");
                        }
                }catch(Exception e) {
                }
                return diff;
        }


        public Double checkCard(Double sum) {
```

```java
        Double diff = 0.0;
        Connection conn = null;
        try {
                Class.forName("org.postgresql.Driver");
        conn = DriverManager.getConnection("jdbc:postgresql://localhost:5432/
pos1", "postgres", "admin");
        }catch(Exception e) {
    System.out.print(e);
        }

        try {
                Statement st = conn.createStatement();
                String sql = ("SELECT card FROM payment");
                ResultSet rs = st.executeQuery(sql);
                while(rs.next()) {
                        diff = sum - rs.getDouble("card");
                }
        }catch(Exception e) {
        }
        return diff;
    }
    public void zeroCash() {
        Connection conn = null;
        try {
                Class.forName("org.postgresql.Driver");
        conn = DriverManager.getConnection("jdbc:postgresql://localhost:5432/
pos1", "postgres", "admin");
        }catch(Exception e) {
    System.out.print(e);
        }

        try {
                Statement st = conn.createStatement();
                String sql = ("SELECT cash FROM payment");
                ResultSet rs = st.executeQuery(sql);
```

```java
                    while(rs.next()) {
                        st.executeUpdate("UPDATE payment SET cash = 0 WHERE id
= 1");
                    }
                }catch(Exception e) {
                }
        }
        public void zeroCard() {
                Connection conn = null;
                try {
                        Class.forName("org.postgresql.Driver");
                conn = DriverManager.getConnection("jdbc:postgresql://localhost:5432/
pos1", "postgres", "admin");
                }catch(Exception e) {
            System.out.print(e);
                }

                try {
                        Statement st = conn.createStatement();
                        String sql = ("SELECT card FROM payment");
                        ResultSet rs = st.executeQuery(sql);
                        while(rs.next()) {
                            st.executeUpdate("UPDATE payment SET card = 0 WHERE id
= 1");
                        }
                }catch(Exception e) {
                }
        }

}
Finalize.java
package pos;

import java.awt.EventQueue;
```

```java
import javax.swing.JFrame;
import java.awt.Color;
import javax.swing.JButton;
import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;

public class Finalize {

    private JFrame frame;

    public Finalize() {
        initialize();
    }

    public void setVisible() {
        frame.setVisible(true);
    }

    private void initialize() {

        Database database = new Database();

        frame = new JFrame();
        frame.getContentPane().setBackground(new Color(51, 51, 51));
        frame.getContentPane().setLayout(null);

        JButton btnNewButton = new JButton("Card");
        btnNewButton.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent e) {
                database.card(GuiMainAdm.sum);
                GuiMainAdm.sum = 0.0;
                frame.dispose();
            }
        });
        btnNewButton.setBounds(237, 31, 219, 96);
```

```java
			frame.getContentPane().add(btnNewButton);

			JButton btnCash = new JButton("Cash");
			btnCash.addActionListener(new ActionListener() {
				public void actionPerformed(ActionEvent e) {
					database.cash(GuiMainAdm.sum);
					GuiMainAdm.sum = 0.0;
					frame.dispose();
				}
			});
			btnCash.setBounds(6, 31, 219, 96);
			frame.getContentPane().add(btnCash);
			frame.setResizable(false);
			frame.setBounds(100, 100, 460, 202);
			frame.setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
			frame.setLocationRelativeTo(null);
	}

}
```
Finalize2.java
```java
package pos;

import java.awt.EventQueue;

import javax.swing.JFrame;
import java.awt.Color;
import javax.swing.JButton;
import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;

public class Finalize2 {

	private JFrame frame;

	public Finalize2() {
```

```java
        initialize();
}

public void setVisible() {
        frame.setVisible(true);
}

private void initialize() {

        Database database = new Database();

        frame = new JFrame();
        frame.getContentPane().setBackground(new Color(51, 51, 51));
        frame.getContentPane().setLayout(null);

        JButton btnNewButton = new JButton("Card");
        btnNewButton.addActionListener(new ActionListener() {
                public void actionPerformed(ActionEvent e) {
                        database.card(GuiMainEmp.sum);
                        GuiMainEmp.sum = 0.0;
                        frame.dispose();
                }
        });
        btnNewButton.setBounds(237, 31, 219, 96);
        frame.getContentPane().add(btnNewButton);

        JButton btnCash = new JButton("Cash");
        btnCash.addActionListener(new ActionListener() {
                public void actionPerformed(ActionEvent e) {
                        database.cash(GuiMainEmp.sum);
                        GuiMainEmp.sum = 0.0;
                        frame.dispose();
                }
        });
        btnCash.setBounds(6, 31, 219, 96);
```

```java
            frame.getContentPane().add(btnCash);
            frame.setResizable(false);
            frame.setBounds(100, 100, 460, 202);
            frame.setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
            frame.setLocationRelativeTo(null);
        }

}
```

count.java

```java
package pos;

import java.awt.EventQueue;

import javax.swing.JFrame;
import java.awt.Color;
import javax.swing.JLabel;
import java.awt.Font;
import javax.swing.JTextField;
import javax.swing.JButton;
import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;

public class count {

        private JFrame frame;
        private JTextField textField;
        private JTextField textField_1;
        private JTextField textField_2;
        private JTextField textField_3;
        private JTextField textField_4;
        private JTextField textField_5;
        private JTextField textField_6;
        private JTextField textField_7;
        private JTextField textField_8;
        private JTextField textField_9;
```

```java
private JTextField textField_10;
private JTextField textField_11;
private JTextField textField_12;
private JTextField textField_13;
private JTextField textField_14;
private JTextField textField_15;
Double cash = 0.0;
Double card = 0.0;

public void setVisible() {
        frame.setVisible(true);
}


public count() {
        initialize();
}

private void initialize() {
        Database database = new Database();
        frame = new JFrame();
        frame.getContentPane().setBackground(new Color(51, 51, 51));
        frame.getContentPane().setLayout(null);

        JLabel lblNewLabel = new JLabel("500");
        lblNewLabel.setForeground(new Color(255, 255, 255));
        lblNewLabel.setFont(new Font("Arial", Font.PLAIN, 17));
        lblNewLabel.setBounds(132, 53, 42, 33);
        frame.getContentPane().add(lblNewLabel);

        JLabel lblNewLabel_1 = new JLabel("200");
        lblNewLabel_1.setForeground(new Color(255, 255, 255));
        lblNewLabel_1.setFont(new Font("Arial", Font.PLAIN, 17));
        lblNewLabel_1.setBounds(271, 53, 50, 33);
        frame.getContentPane().add(lblNewLabel_1);
```

```java
JLabel lblNewLabel_2 = new JLabel("100");
lblNewLabel_2.setForeground(new Color(255, 255, 255));
lblNewLabel_2.setFont(new Font("Arial", Font.PLAIN, 17));
lblNewLabel_2.setBounds(410, 53, 50, 33);
frame.getContentPane().add(lblNewLabel_2);

JLabel lblNewLabel_3 = new JLabel("50");
lblNewLabel_3.setForeground(new Color(255, 255, 255));
lblNewLabel_3.setFont(new Font("Arial", Font.PLAIN, 17));
lblNewLabel_3.setBounds(549, 53, 33, 33);
frame.getContentPane().add(lblNewLabel_3);

JLabel lblNewLabel_1_1 = new JLabel("20");
lblNewLabel_1_1.setForeground(new Color(255, 255, 255));
lblNewLabel_1_1.setFont(new Font("Arial", Font.PLAIN, 17));
lblNewLabel_1_1.setBounds(669, 53, 42, 33);
frame.getContentPane().add(lblNewLabel_1_1);

JLabel lblNewLabel_2_1 = new JLabel("10");
lblNewLabel_2_1.setForeground(new Color(255, 255, 255));
lblNewLabel_2_1.setFont(new Font("Arial", Font.PLAIN, 17));
lblNewLabel_2_1.setBounds(132, 98, 42, 33);
frame.getContentPane().add(lblNewLabel_2_1);

JLabel lblNewLabel_4 = new JLabel("5");
lblNewLabel_4.setForeground(new Color(255, 255, 255));
lblNewLabel_4.setFont(new Font("Arial", Font.PLAIN, 17));
lblNewLabel_4.setBounds(271, 98, 42, 33);
frame.getContentPane().add(lblNewLabel_4);

JLabel lblNewLabel_1_2 = new JLabel("2");
lblNewLabel_1_2.setForeground(new Color(255, 255, 255));
lblNewLabel_1_2.setFont(new Font("Arial", Font.PLAIN, 17));
lblNewLabel_1_2.setBounds(410, 98, 33, 33);
```

```java
frame.getContentPane().add(lblNewLabel_1_2);

JLabel lblNewLabel_2_2 = new JLabel("1");
lblNewLabel_2_2.setForeground(new Color(255, 255, 255));
lblNewLabel_2_2.setFont(new Font("Arial", Font.PLAIN, 17));
lblNewLabel_2_2.setBounds(549, 98, 33, 33);
frame.getContentPane().add(lblNewLabel_2_2);

JLabel lblNewLabel_5 = new JLabel("0.50");
lblNewLabel_5.setForeground(new Color(255, 255, 255));
lblNewLabel_5.setFont(new Font("Arial", Font.PLAIN, 17));
lblNewLabel_5.setBounds(669, 98, 50, 33);
frame.getContentPane().add(lblNewLabel_5);

JLabel lblNewLabel_1_3 = new JLabel("0.20");
lblNewLabel_1_3.setForeground(new Color(255, 255, 255));
lblNewLabel_1_3.setFont(new Font("Arial", Font.PLAIN, 17));
lblNewLabel_1_3.setBounds(132, 143, 42, 33);
frame.getContentPane().add(lblNewLabel_1_3);

JLabel lblNewLabel_2_3 = new JLabel("0.10");
lblNewLabel_2_3.setForeground(new Color(255, 255, 255));
lblNewLabel_2_3.setFont(new Font("Arial", Font.PLAIN, 17));
lblNewLabel_2_3.setBounds(271, 143, 50, 33);
frame.getContentPane().add(lblNewLabel_2_3);

JLabel lblNewLabel_5_1 = new JLabel("0.05");
lblNewLabel_5_1.setForeground(Color.WHITE);
lblNewLabel_5_1.setFont(new Font("Arial", Font.PLAIN, 17));
lblNewLabel_5_1.setBounds(410, 143, 50, 33);
frame.getContentPane().add(lblNewLabel_5_1);

JLabel lblNewLabel_5_2 = new JLabel("0.02");
lblNewLabel_5_2.setForeground(Color.WHITE);
lblNewLabel_5_2.setFont(new Font("Arial", Font.PLAIN, 17));
```

```java
lblNewLabel_5_2.setBounds(536, 143, 46, 33);
frame.getContentPane().add(lblNewLabel_5_2);

JLabel lblNewLabel_5_3 = new JLabel("0.01");
lblNewLabel_5_3.setForeground(Color.WHITE);
lblNewLabel_5_3.setFont(new Font("Arial", Font.PLAIN, 17));
lblNewLabel_5_3.setBounds(669, 143, 50, 33);
frame.getContentPane().add(lblNewLabel_5_3);

textField = new JTextField();
textField.setBounds(166, 57, 60, 26);
frame.getContentPane().add(textField);
textField.setColumns(10);

textField_1 = new JTextField();
textField_1.setColumns(10);
textField_1.setBounds(312, 57, 60, 26);
frame.getContentPane().add(textField_1);

textField_2 = new JTextField();
textField_2.setColumns(10);
textField_2.setBounds(448, 57, 60, 26);
frame.getContentPane().add(textField_2);

textField_3 = new JTextField();
textField_3.setColumns(10);
textField_3.setBounds(582, 57, 60, 26);
frame.getContentPane().add(textField_3);

textField_4 = new JTextField();
textField_4.setColumns(10);
textField_4.setBounds(703, 57, 60, 26);
frame.getContentPane().add(textField_4);

textField_5 = new JTextField();
```

```java
textField_5.setColumns(10);
textField_5.setBounds(166, 102, 60, 26);
frame.getContentPane().add(textField_5);

textField_6 = new JTextField();
textField_6.setColumns(10);
textField_6.setBounds(312, 98, 60, 26);
frame.getContentPane().add(textField_6);

textField_7 = new JTextField();
textField_7.setColumns(10);
textField_7.setBounds(448, 98, 60, 26);
frame.getContentPane().add(textField_7);

textField_8 = new JTextField();
textField_8.setColumns(10);
textField_8.setBounds(582, 102, 60, 26);
frame.getContentPane().add(textField_8);

textField_9 = new JTextField();
textField_9.setColumns(10);
textField_9.setBounds(703, 102, 60, 26);
frame.getContentPane().add(textField_9);

textField_10 = new JTextField();
textField_10.setColumns(10);
textField_10.setBounds(166, 147, 60, 26);
frame.getContentPane().add(textField_10);

textField_11 = new JTextField();
textField_11.setColumns(10);
textField_11.setBounds(312, 147, 60, 26);
frame.getContentPane().add(textField_11);

textField_12 = new JTextField();
```

```java
textField_12.setColumns(10);
textField_12.setBounds(448, 143, 60, 26);
frame.getContentPane().add(textField_12);

textField_13 = new JTextField();
textField_13.setColumns(10);
textField_13.setBounds(582, 143, 60, 26);
frame.getContentPane().add(textField_13);

textField_14 = new JTextField();
textField_14.setColumns(10);
textField_14.setBounds(703, 147, 60, 26);
frame.getContentPane().add(textField_14);

JLabel lblCard = new JLabel("Card");
lblCard.setForeground(Color.WHITE);
lblCard.setFont(new Font("Arial", Font.PLAIN, 17));
lblCard.setBounds(383, 251, 60, 33);
frame.getContentPane().add(lblCard);

textField_15 = new JTextField();
textField_15.setBounds(448, 255, 130, 26);
frame.getContentPane().add(textField_15);
textField_15.setColumns(10);




JLabel lblCashDifference = new JLabel("Cash difference:");
lblCashDifference.setForeground(Color.WHITE);
lblCashDifference.setFont(new Font("Arial", Font.PLAIN, 17));
lblCashDifference.setBounds(313, 296, 130, 33);
frame.getContentPane().add(lblCashDifference);

JLabel lblCardDifference = new JLabel("Card difference:");
lblCardDifference.setForeground(Color.WHITE);
```

```java
lblCardDifference.setFont(new Font("Arial", Font.PLAIN, 17));
lblCardDifference.setBounds(313, 341, 130, 33);
frame.getContentPane().add(lblCardDifference);



JLabel lblCashDifference_1 = new JLabel("");
lblCashDifference_1.setForeground(Color.WHITE);
lblCashDifference_1.setFont(new Font("Arial", Font.PLAIN, 17));
lblCashDifference_1.setBounds(448, 296, 130, 33);
frame.getContentPane().add(lblCashDifference_1);

JLabel lblCashDifference_2 = new JLabel("");
lblCashDifference_2.setForeground(Color.WHITE);
lblCashDifference_2.setFont(new Font("Arial", Font.PLAIN, 17));
lblCashDifference_2.setBounds(448, 341, 130, 33);

JButton btnNewButton = new JButton("Calculate");
btnNewButton.addActionListener(new ActionListener() {
        public void actionPerformed(ActionEvent e) {
                cash = countCash();

lblCashDifference_1.setText(Double.toString(database.checkCash(cash)));

lblCashDifference_2.setText(Double.toString(database.checkCard(Double.parseDouble(textField_15.getText()))));

        }
});
btnNewButton.setFont(new Font("Arial", Font.PLAIN, 15));
btnNewButton.setBounds(312, 402, 117, 29);
frame.getContentPane().add(btnNewButton);

JButton btnBack = new JButton("Back");
btnBack.addActionListener(new ActionListener() {
        public void actionPerformed(ActionEvent e) {
```

```java
                            database.zeroCard();
                            database.zeroCash();
                            frame.dispose();
                            EventQueue.invokeLater(new Runnable() {
                                    public void run() {
                                            try {
                                                    GuiMainAdm window = new
GuiMainAdm();

                                                    window.setVisible();
                                            } catch (Exception e) {
                                                    e.printStackTrace();
                                            }
                                    }
                            });
                    }
            });
            btnBack.setFont(new Font("Arial", Font.PLAIN, 15));
            btnBack.setBounds(465, 402, 117, 29);
            frame.getContentPane().add(btnBack);

            frame.getContentPane().add(lblCashDifference_2);
            frame.setResizable(false);
            frame.setSize(1000,500);
            frame.setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
            frame.setLocationRelativeTo(null);
    }

    public Double countCash() {
            Double d = 0.0;
            d = (Double.parseDouble(textField.getText())*500) +
(Double.parseDouble(textField_1.getText())*200)
                            + (Double.parseDouble(textField_2.getText())*100) +
(Double.parseDouble(textField_3.getText())*50)
                            + (Double.parseDouble(textField_4.getText())*20) +
(Double.parseDouble(textField_5.getText())*10)
```

```java
                + (Double.parseDouble(textField_6.getText())*5)+
(Double.parseDouble(textField_7.getText())*2) +
(Double.parseDouble(textField_8.getText())*1)
                    +(Double.parseDouble(textField_9.getText())*0.5) +
(Double.parseDouble(textField_10.getText())*0.2) +
(Double.parseDouble(textField_11.getText())*0.1)
                    + (Double.parseDouble(textField_12.getText())*0.05) +
(Double.parseDouble(textField_13.getText())*0.02) +
(Double.parseDouble(textField_14.getText())*0.01);
            return d;
        }

}
```

count2.java

```java
package pos;

import java.awt.EventQueue;

import javax.swing.JFrame;
import java.awt.Color;
import javax.swing.JLabel;
import java.awt.Font;
import javax.swing.JTextField;
import javax.swing.JButton;
import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;

public class count2 {

        private JFrame frame;
        private JTextField textField;
        private JTextField textField_1;
        private JTextField textField_2;
        private JTextField textField_3;
        private JTextField textField_4;
```

```java
private JTextField textField_5;
private JTextField textField_6;
private JTextField textField_7;
private JTextField textField_8;
private JTextField textField_9;
private JTextField textField_10;
private JTextField textField_11;
private JTextField textField_12;
private JTextField textField_13;
private JTextField textField_14;
private JTextField textField_15;
Double cash = 0.0;
Double card = 0.0;

public void setVisible() {
        frame.setVisible(true);
}


public count2() {
        initialize();
}

private void initialize() {
        Database database = new Database();
        frame = new JFrame();
        frame.getContentPane().setBackground(new Color(51, 51, 51));
        frame.getContentPane().setLayout(null);

        JLabel lblNewLabel = new JLabel("500");
        lblNewLabel.setForeground(new Color(255, 255, 255));
        lblNewLabel.setFont(new Font("Arial", Font.PLAIN, 17));
        lblNewLabel.setBounds(132, 53, 42, 33);
        frame.getContentPane().add(lblNewLabel);
```

```java
JLabel lblNewLabel_1 = new JLabel("200");
lblNewLabel_1.setForeground(new Color(255, 255, 255));
lblNewLabel_1.setFont(new Font("Arial", Font.PLAIN, 17));
lblNewLabel_1.setBounds(271, 53, 50, 33);
frame.getContentPane().add(lblNewLabel_1);

JLabel lblNewLabel_2 = new JLabel("100");
lblNewLabel_2.setForeground(new Color(255, 255, 255));
lblNewLabel_2.setFont(new Font("Arial", Font.PLAIN, 17));
lblNewLabel_2.setBounds(410, 53, 50, 33);
frame.getContentPane().add(lblNewLabel_2);

JLabel lblNewLabel_3 = new JLabel("50");
lblNewLabel_3.setForeground(new Color(255, 255, 255));
lblNewLabel_3.setFont(new Font("Arial", Font.PLAIN, 17));
lblNewLabel_3.setBounds(549, 53, 33, 33);
frame.getContentPane().add(lblNewLabel_3);

JLabel lblNewLabel_1_1 = new JLabel("20");
lblNewLabel_1_1.setForeground(new Color(255, 255, 255));
lblNewLabel_1_1.setFont(new Font("Arial", Font.PLAIN, 17));
lblNewLabel_1_1.setBounds(669, 53, 42, 33);
frame.getContentPane().add(lblNewLabel_1_1);

JLabel lblNewLabel_2_1 = new JLabel("10");
lblNewLabel_2_1.setForeground(new Color(255, 255, 255));
lblNewLabel_2_1.setFont(new Font("Arial", Font.PLAIN, 17));
lblNewLabel_2_1.setBounds(132, 98, 42, 33);
frame.getContentPane().add(lblNewLabel_2_1);

JLabel lblNewLabel_4 = new JLabel("5");
lblNewLabel_4.setForeground(new Color(255, 255, 255));
lblNewLabel_4.setFont(new Font("Arial", Font.PLAIN, 17));
lblNewLabel_4.setBounds(271, 98, 42, 33);
frame.getContentPane().add(lblNewLabel_4);
```

```java
JLabel lblNewLabel_1_2 = new JLabel("2");
lblNewLabel_1_2.setForeground(new Color(255, 255, 255));
lblNewLabel_1_2.setFont(new Font("Arial", Font.PLAIN, 17));
lblNewLabel_1_2.setBounds(410, 98, 33, 33);
frame.getContentPane().add(lblNewLabel_1_2);

JLabel lblNewLabel_2_2 = new JLabel("1");
lblNewLabel_2_2.setForeground(new Color(255, 255, 255));
lblNewLabel_2_2.setFont(new Font("Arial", Font.PLAIN, 17));
lblNewLabel_2_2.setBounds(549, 98, 33, 33);
frame.getContentPane().add(lblNewLabel_2_2);

JLabel lblNewLabel_5 = new JLabel("0.50");
lblNewLabel_5.setForeground(new Color(255, 255, 255));
lblNewLabel_5.setFont(new Font("Arial", Font.PLAIN, 17));
lblNewLabel_5.setBounds(669, 98, 50, 33);
frame.getContentPane().add(lblNewLabel_5);

JLabel lblNewLabel_1_3 = new JLabel("0.20");
lblNewLabel_1_3.setForeground(new Color(255, 255, 255));
lblNewLabel_1_3.setFont(new Font("Arial", Font.PLAIN, 17));
lblNewLabel_1_3.setBounds(132, 143, 42, 33);
frame.getContentPane().add(lblNewLabel_1_3);

JLabel lblNewLabel_2_3 = new JLabel("0.10");
lblNewLabel_2_3.setForeground(new Color(255, 255, 255));
lblNewLabel_2_3.setFont(new Font("Arial", Font.PLAIN, 17));
lblNewLabel_2_3.setBounds(271, 143, 50, 33);
frame.getContentPane().add(lblNewLabel_2_3);

JLabel lblNewLabel_5_1 = new JLabel("0.05");
lblNewLabel_5_1.setForeground(Color.WHITE);
lblNewLabel_5_1.setFont(new Font("Arial", Font.PLAIN, 17));
lblNewLabel_5_1.setBounds(410, 143, 50, 33);
```

```java
frame.getContentPane().add(lblNewLabel_5_1);

JLabel lblNewLabel_5_2 = new JLabel("0.02");
lblNewLabel_5_2.setForeground(Color.WHITE);
lblNewLabel_5_2.setFont(new Font("Arial", Font.PLAIN, 17));
lblNewLabel_5_2.setBounds(536, 143, 46, 33);
frame.getContentPane().add(lblNewLabel_5_2);

JLabel lblNewLabel_5_3 = new JLabel("0.01");
lblNewLabel_5_3.setForeground(Color.WHITE);
lblNewLabel_5_3.setFont(new Font("Arial", Font.PLAIN, 17));
lblNewLabel_5_3.setBounds(669, 143, 50, 33);
frame.getContentPane().add(lblNewLabel_5_3);

textField = new JTextField();
textField.setBounds(166, 57, 60, 26);
frame.getContentPane().add(textField);
textField.setColumns(10);

textField_1 = new JTextField();
textField_1.setColumns(10);
textField_1.setBounds(312, 57, 60, 26);
frame.getContentPane().add(textField_1);

textField_2 = new JTextField();
textField_2.setColumns(10);
textField_2.setBounds(448, 57, 60, 26);
frame.getContentPane().add(textField_2);

textField_3 = new JTextField();
textField_3.setColumns(10);
textField_3.setBounds(582, 57, 60, 26);
frame.getContentPane().add(textField_3);

textField_4 = new JTextField();
```

```java
textField_4.setColumns(10);
textField_4.setBounds(703, 57, 60, 26);
frame.getContentPane().add(textField_4);

textField_5 = new JTextField();
textField_5.setColumns(10);
textField_5.setBounds(166, 102, 60, 26);
frame.getContentPane().add(textField_5);

textField_6 = new JTextField();
textField_6.setColumns(10);
textField_6.setBounds(312, 98, 60, 26);
frame.getContentPane().add(textField_6);

textField_7 = new JTextField();
textField_7.setColumns(10);
textField_7.setBounds(448, 98, 60, 26);
frame.getContentPane().add(textField_7);

textField_8 = new JTextField();
textField_8.setColumns(10);
textField_8.setBounds(582, 102, 60, 26);
frame.getContentPane().add(textField_8);

textField_9 = new JTextField();
textField_9.setColumns(10);
textField_9.setBounds(703, 102, 60, 26);
frame.getContentPane().add(textField_9);

textField_10 = new JTextField();
textField_10.setColumns(10);
textField_10.setBounds(166, 147, 60, 26);
frame.getContentPane().add(textField_10);

textField_11 = new JTextField();
```

```java
textField_11.setColumns(10);
textField_11.setBounds(312, 147, 60, 26);
frame.getContentPane().add(textField_11);

textField_12 = new JTextField();
textField_12.setColumns(10);
textField_12.setBounds(448, 143, 60, 26);
frame.getContentPane().add(textField_12);

textField_13 = new JTextField();
textField_13.setColumns(10);
textField_13.setBounds(582, 143, 60, 26);
frame.getContentPane().add(textField_13);

textField_14 = new JTextField();
textField_14.setColumns(10);
textField_14.setBounds(703, 147, 60, 26);
frame.getContentPane().add(textField_14);

JLabel lblCard = new JLabel("Card");
lblCard.setForeground(Color.WHITE);
lblCard.setFont(new Font("Arial", Font.PLAIN, 17));
lblCard.setBounds(383, 251, 60, 33);
frame.getContentPane().add(lblCard);

textField_15 = new JTextField();
textField_15.setBounds(448, 255, 130, 26);
frame.getContentPane().add(textField_15);
textField_15.setColumns(10);


JLabel lblCashDifference = new JLabel("Cash difference:");
lblCashDifference.setForeground(Color.WHITE);
lblCashDifference.setFont(new Font("Arial", Font.PLAIN, 17));
```

```
                    lblCashDifference.setBounds(313, 296, 130, 33);
                    frame.getContentPane().add(lblCashDifference);


                    JLabel lblCardDifference = new JLabel("Card difference:");
                    lblCardDifference.setForeground(Color.WHITE);
                    lblCardDifference.setFont(new Font("Arial", Font.PLAIN, 17));
                    lblCardDifference.setBounds(313, 341, 130, 33);
                    frame.getContentPane().add(lblCardDifference);



                    JLabel lblCashDifference_1 = new JLabel("");
                    lblCashDifference_1.setForeground(Color.WHITE);
                    lblCashDifference_1.setFont(new Font("Arial", Font.PLAIN, 17));
                    lblCashDifference_1.setBounds(448, 296, 130, 33);
                    frame.getContentPane().add(lblCashDifference_1);


                    JLabel lblCashDifference_2 = new JLabel("");
                    lblCashDifference_2.setForeground(Color.WHITE);
                    lblCashDifference_2.setFont(new Font("Arial", Font.PLAIN, 17));
                    lblCashDifference_2.setBounds(448, 341, 130, 33);


                    JButton btnNewButton = new JButton("Calculate");
                    btnNewButton.addActionListener(new ActionListener() {
                            public void actionPerformed(ActionEvent e) {
                                    cash = countCash();

lblCashDifference_1.setText(Double.toString(database.checkCash(cash)));

lblCashDifference_2.setText(Double.toString(database.checkCard(Double.parseDouble(te
xtField_15.getText()))));

                            }
                    });
                    btnNewButton.setFont(new Font("Arial", Font.PLAIN, 15));
                    btnNewButton.setBounds(312, 402, 117, 29);
```

```java
			frame.getContentPane().add(btnNewButton);

			JButton btnBack = new JButton("Back");
			btnBack.addActionListener(new ActionListener() {
				public void actionPerformed(ActionEvent e) {
					database.zeroCard();
					database.zeroCash();
					frame.dispose();
					EventQueue.invokeLater(new Runnable() {
						public void run() {
							try {
								GuiMainEmp window = new
GuiMainEmp();

								window.setVisible();
							} catch (Exception e) {
								e.printStackTrace();
							}
						}
					});
				}
			});
			btnBack.setFont(new Font("Arial", Font.PLAIN, 15));
			btnBack.setBounds(465, 402, 117, 29);
			frame.getContentPane().add(btnBack);

			frame.getContentPane().add(lblCashDifference_2);
			frame.setResizable(false);
			frame.setSize(1000,500);
			frame.setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
			frame.setLocationRelativeTo(null);
	}

	public Double countCash() {
		Double d = 0.0;
```

```java
        d = (Double.parseDouble(textField.getText())*500) +
(Double.parseDouble(textField_1.getText())*200)
                    + (Double.parseDouble(textField_2.getText())*100) +
(Double.parseDouble(textField_3.getText())*50)
                    + (Double.parseDouble(textField_4.getText())*20) +
(Double.parseDouble(textField_5.getText())*10)
                    + (Double.parseDouble(textField_6.getText())*5)+
(Double.parseDouble(textField_7.getText())*2) +
(Double.parseDouble(textField_8.getText())*1)
                    +(Double.parseDouble(textField_9.getText())*0.5) +
(Double.parseDouble(textField_10.getText())*0.2) +
(Double.parseDouble(textField_11.getText())*0.1)
                    + (Double.parseDouble(textField_12.getText())*0.05) +
(Double.parseDouble(textField_13.getText())*0.02) +
(Double.parseDouble(textField_14.getText())*0.01);
        return d;
    }

}
```