



TaskFriend: A Tamagotchi inspired To-Do List

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VERSION 1

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Introduction

Project Idea: A To-Do list application combined with Tamagotchi

An accountability-based pet simulator. Earn points by completing tasks on your To-Do list and use those points to care for your Task Friend, a virtual pet that cheers you on as you work.

TaskFriend is inspired by Tamagotchi, an interactive pet game that allows users to care for a virtual creature in real time. The owner is responsible for the wellness of the Tamagotchi by following simple tasks such as feeding the Tamagotchi, cleaning up after them, and providing them with the proper attention to keep them happy and alive.

Our application caters to individuals who utilize to-do lists to manage their day-to-day lives and would like a fun twist to their productivity system. By combining the to-do list experience with Tamagotchi, TaskFriend provides a unique incentive to stay on top of your work. You not only get the satisfaction of completing tasks but also the joy of seeing your Task Friend thrive.

Features

To-Do List

Main function of the application

- Add tasks to a To-Do List
 - Set task name, difficulty, and due date & time
- Edit tasks on To-Do List
 - Edit task name, difficulty, and due date & time
- Remove tasks from To-Do List
 - Remove selected tasks without adding points
- Completing tasks in time will earn points depending on the difficulty
 - Not completing tasks in time depletes Task Friend's Wellness points
 - Will continue deducting Wellness points until the user completes a task
- Completing overdue tasks will still earn points, but less

Task Friend

Start with a randomly chosen Task Friend at full health out of 5 unique designs

- Feed your Task Friend by spending points on Food of choice
 - Adds Fullness points
- Entertain your Task Friend by spending points on Toy of choice
 - Adds Happiness points

- Heal your Task Friend by spending points on Heal of choice
 - Adds Wellness points
- Play with your Task Friend by spending points on choice of Mini Game
 - Adds Happiness & Wellness points
- Exchange your Task Friend for the other 4 designs by spending many points
- Dress up your Task Friend by spending many points on Accessory of choice

Additional Features

Task Difficulty Rating

It may be difficult to self-evaluate the difficulty of a task objectively

- Based on the physical effort, mental effort, and length of time a task takes, will evaluate the objective difficulty of the task

Task Friend Mini-Games

From the original Tamagotchi: Play mini-games to interact with your Task Friend

- Playing a minigame is costly but grants many Happiness and Wellness points
- Example: Higher Lower Mini-game

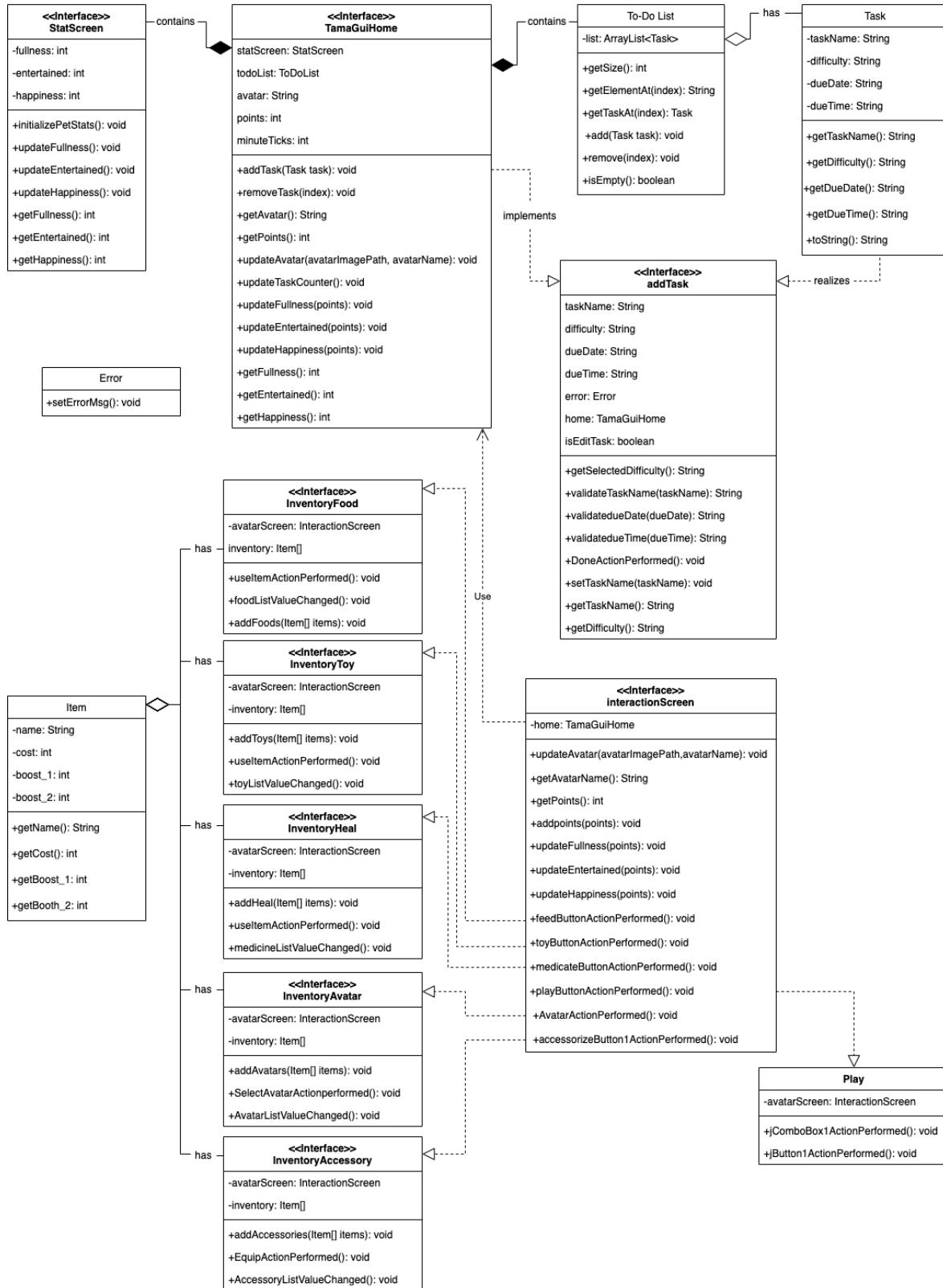
Design

We wanted to make sure that the Tamagotchi element was not counterproductive to the productivity of the application and provided an incentive instead of a distraction. Thus, the To-Do List operations are separate from the Task Friend interactions.

Inheritance Hierarchy

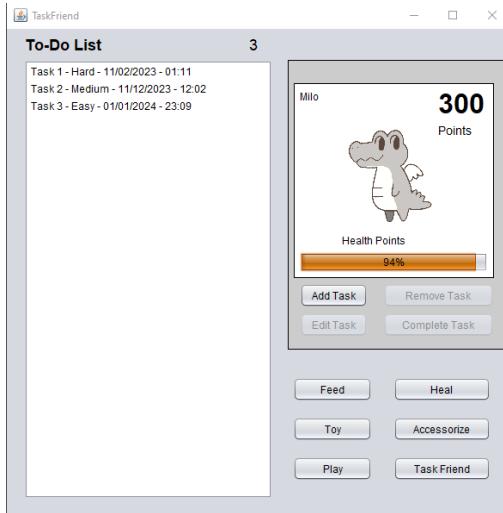


UML Class Design

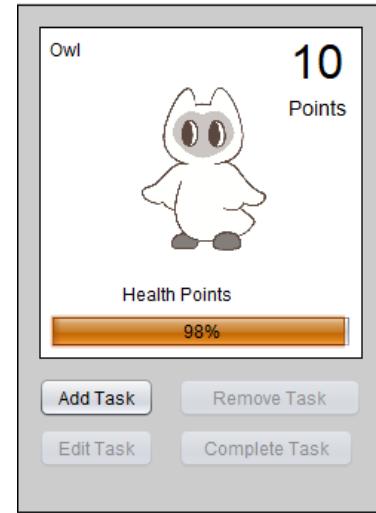


GUI Screens

Home Screen



Full Home Screen

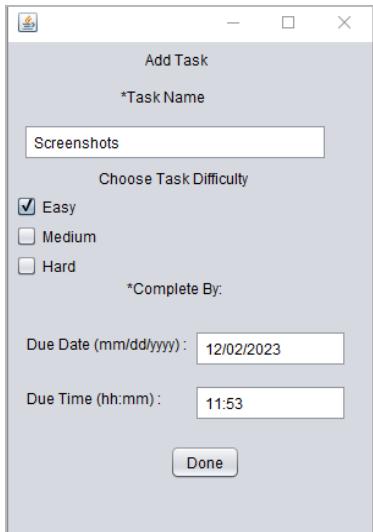


To-Do List methods

To-Do List GUI

Mainly features the To-Do List and its methods:

- Add Task, Edit Task, Remove Task, and Complete Task
- To-Do List methods are visually presented as “console buttons,” reminiscent of handheld video game consoles



Add Task Screen



Added task on To-Do List

Add Task

- Opens a new screen for the user to enter a name, difficulty, and due date
- Creates a new Task object stored in ToDoList and displayed on To-Do List GUI

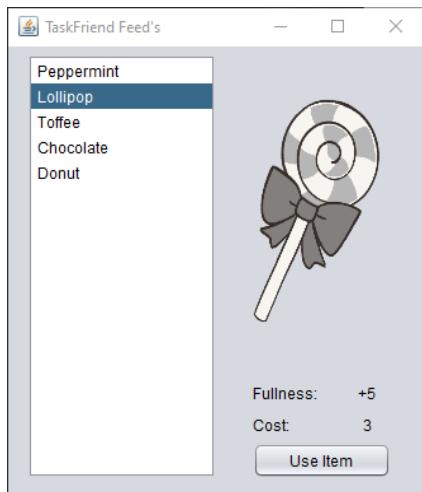


Task Friend Interaction GUI

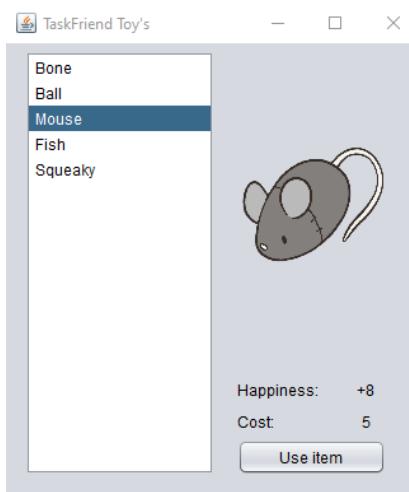
Task Friend Interaction GUI

Menu of interaction buttons: Feed, Toy, Heal, Play, Avatar, and Accessories

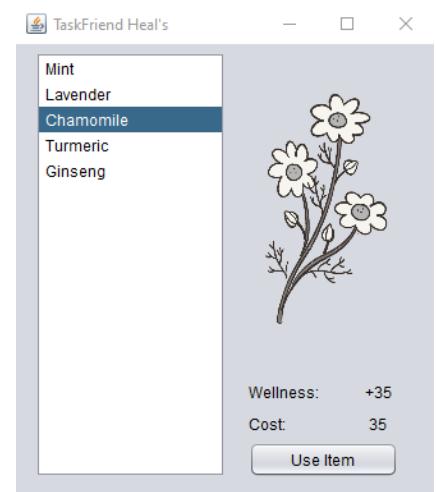
- Items will only be used if amount of points are sufficient



Feed Screen



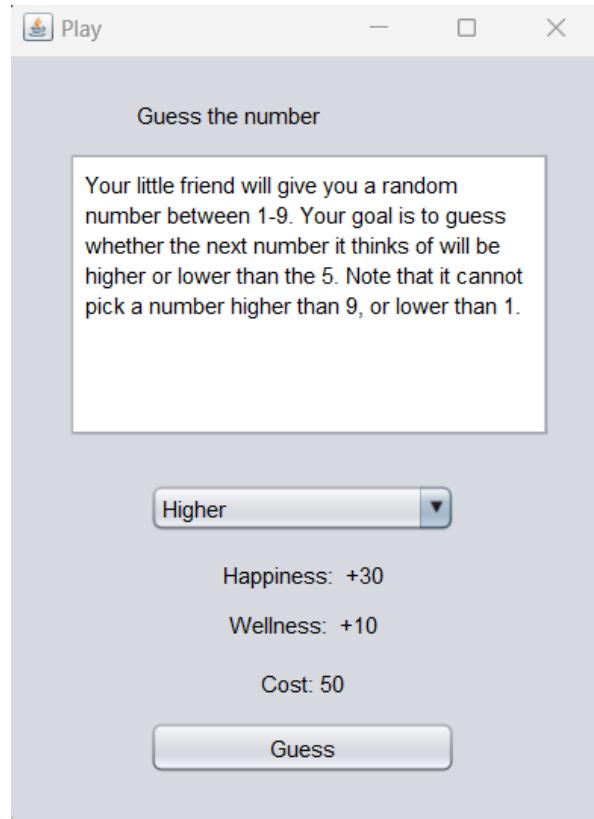
Toy Screen



Heal Screen

Feed, Toy, and Heal

Opens a screen for the user to spend points to use the selected item



Play Screen (Mini game: Guess the number)

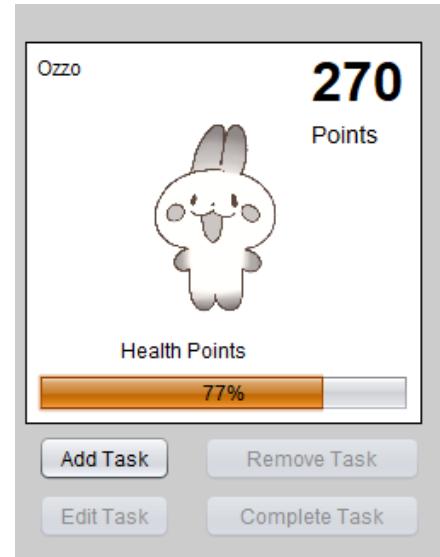
Play

Opens a screen to spend points to play the selected mini game

Description: Your Task Friend will give you a random number between 1-9. Your goal is to guess whether the next number it thinks of will be higher or lower than the given number. It cannot pick a number higher than 9, or lower than 1



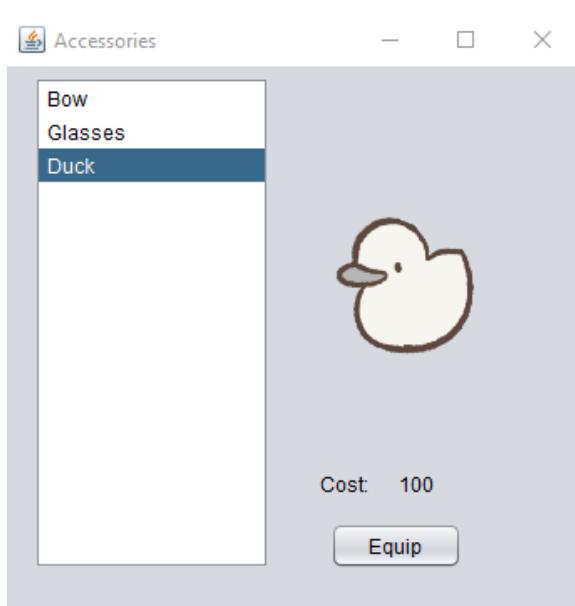
Task Friend Select Screen



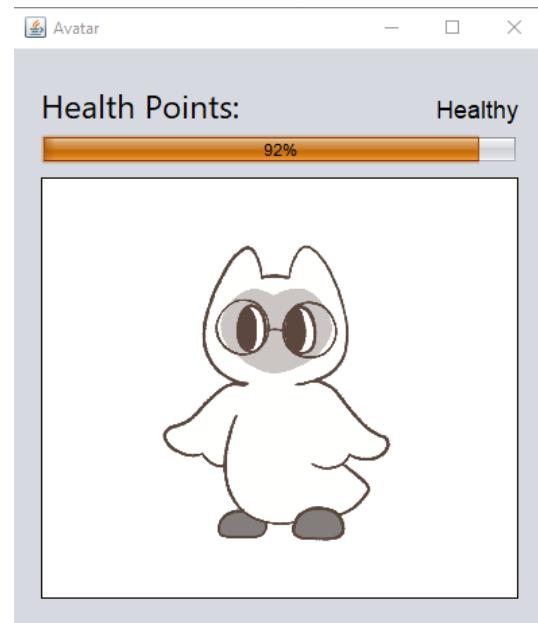
New Task Friend!

Exchange Task Friend

Opens a screen to spend points to exchange current Task Friend for selected Task Friend



Accessory Screen



Task Friend wearing an accessory

Accessories

Opens a screen to spend points to change Task Friend's appearance with selected accessory



Task Friend Stats GUI

Task Friend Stats GUI

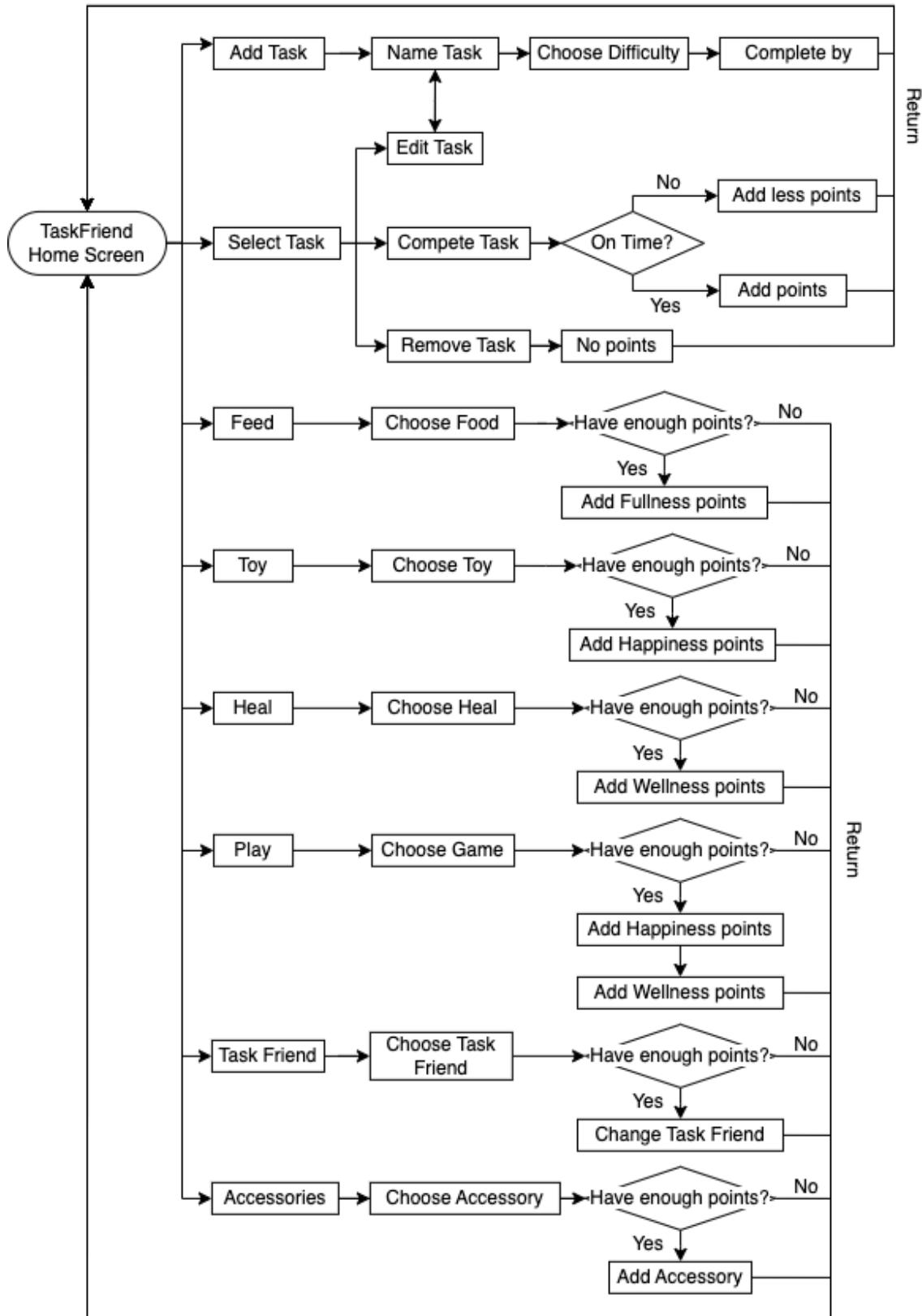
- Monitor 3 Health Stats: Fullness, Happiness, and Wellness
 - Task Friend's overall health is a weighted average of these 3 stats
- Fullness and Happiness steadily decrease over time
- Overdue tasks or To-Do List inactivity for 2 days causes Wellness to decrease over time
 - Wellness represents your Task Friend's pride in you for accomplishing tasks
- Failing to maintain these stats will deplete health, going from:



Healthy (100%) → Weak (75%) → Sick (50%) → Dead (0%)

- If health reaches 0, your Task Friend will die and points go to zero
- Adding another task will revive Task Friend

Use Case Flow Chart



Summary

Conclusion

This semester, our team created TaskFriend, a Tamagotchi inspired To-Do list. TaskFriend integrates multiple features from a To-Do list software and the virtual pet simulation game into one functional application. Users add and complete tasks while caring after a Task Friend, whose well-being highly depends on how productive the user is, as well as how attentive they are to their pet. We faced several challenges such as getting the overall health bar of the Task Friend to reflect the health meters, which was crucial for the project to function as we intended. Despite these challenges, however, we were able to navigate through them by utilizing the resources available to us and maintaining active communication within the team. As a result, we created a prototype that we were pleased with.

Creating TaskFriend provided us with invaluable teamwork experience, new technical knowledge, and room for creativity. We realized the importance of frequent communication to ensure we were on the same page. By developing an application prototype, we got a glimpse of the software development process using the concepts we learned in class. Working on TaskFriend allowed us to apply not only these concepts but also the skills we had beforehand, thus allowing us to use our creative and problem-solving skills. If we were to continue working on this project, we would like to include features such as checkboxes for tasks, Task Friend growth stages, and the ability to transform it into a web-based application to allow online accessibility.

Appendix: Source Code

GitHub Link:

<https://github.com/ArpitaSakshee/TaskFriend>

Source Code & Files:

//FILE: TaskFriend/src/tamagui/Error.form

```
<?xml version="1.0" encoding="UTF-8" ?>

<Form version="1.3" maxVersion="1.9"
type="org.netbeans.modules.form.forminfo.JFrameFormInfo">
    <Properties>
        <Property name="defaultCloseOperation" type="int" value="3"/>
    </Properties>
    <SyntheticProperties>
        <SyntheticProperty name="formSizePolicy" type="int" value="1"/>
        <SyntheticProperty name="generateCenter" type="boolean"
value="false"/>
    </SyntheticProperties>
    <AuxValues>
        <AuxValue name="FormSettings_autoResourcing"
type="java.lang.Integer" value="0"/>
        <AuxValue name="FormSettings_autoSetComponentName"
type="java.lang.Boolean" value="false"/>
        <AuxValue name="FormSettings_generateFQN" type="java.lang.Boolean"
value="true"/>
        <AuxValue name="FormSettings_generateMnemonicsCode"
type="java.lang.Boolean" value="false"/>
        <AuxValue name="FormSettings_i18nAutoMode"
type="java.lang.Boolean" value="false"/>
        <AuxValue name="FormSettings_layoutCodeTarget"
type="java.lang.Integer" value="1"/>
        <AuxValue name="FormSettings_listenerGenerationStyle"
type="java.lang.Integer" value="0"/>
        <AuxValue name="FormSettings_variablesLocal"
type="java.lang.Boolean" value="false"/>
        <AuxValue name="FormSettings_variablesModifier"
type="java.lang.Integer" value="2"/>
    </AuxValues>

    <Layout>
```

```

<DimensionLayout dim="0">
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        <Group type="102" attributes="0">
            <Group type="103" groupAlignment="0" attributes="0">
                <Group type="102" attributes="0">
                    <EmptySpace min="-2" pref="117" max="-2"
attributes="0"/>
                    <Component id="ErrorReturn" min="-2" max="-2"
attributes="0"/>
                </Group>
                <Group type="102" alignment="0" attributes="0">
                    <EmptySpace min="-2" pref="16" max="-2"
attributes="0"/>
                </Group>
                <Component id="ErrorLabel" min="-2" pref="286"
max="-2" attributes="0"/>
            </Group>
        </Group>
    </DimensionLayout>
    <DimensionLayout dim="1">
        <Group type="103" groupAlignment="0" attributes="0">
            <Group type="102" alignment="1" attributes="0">
                <EmptySpace max="-2" attributes="0"/>
                <Component id="ErrorLabel" min="-2" pref="44" max="-2"
attributes="0"/>
                <EmptySpace max="-2" attributes="0"/>
                <Component id="ErrorReturn" min="-2" max="-2"
attributes="0"/>
                <EmptySpace pref="8" max="32767" attributes="0"/>
            </Group>
        </Group>
    </DimensionLayout>
</Layout>
<SubComponents>
    <Component class="javax.swing.JLabel" name="ErrorLabel">
        <Properties>
            <Property name="horizontalAlignment" type="int" value="0"/>
            <Property name="labelFor" type="java.awt.Component"
editor="org.netbeans.modules.form.ComponentChooserEditor">
                <ComponentRef name="ErrorLabel"/>
            </Property>
            <Property name="text" type="java.lang.String" value="Please
fill all required fields"/>
        </Properties>
    </Component>
</SubComponents>

```

```

        <Property name="maximumSize" type="java.awt.Dimension"
editor="org.netbeans.beaninfo.editors.DimensionEditor">
            <Dimension value="[300, 17]" />
        </Property>
    </Properties>
</Component>
<Component class="javax.swing.JButton" name="ErrorReturn">
    <Properties>
        <Property name="text" type="java.lang.String" value="OK" />
    </Properties>
    <Events>
        <EventHandler event="actionPerformed"
listener="java.awt.event.ActionListener"
parameters="java.awt.event.ActionEvent"
handler="ErrorReturnActionPerformed"/>
    </Events>
</Component>
</SubComponents>
</Form>

```

//FILE: TaskFriend/src/tamagui/Error.java

```

/*
 * Click
nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt
to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JFrame.java
to edit this template
 */
package tamagui;

/**
 * Authors/Contributors in alphabetical order.
 * @author Arpita Sakshee
 * @author Christian Villanueva
 * @author Katrina Mai
 * @author Maya Louise Dagdag
 */
public class Error extends javax.swing.JFrame {

    /**
     * Creates new form Error
     */
    public Error() {
        initComponents();
    }
}

```



```

        .addGroup(layout.createSequentialGroup()
            .addGap(117, 117, 117)
            .addComponent(ErrorReturn))
        .addGroup(layout.createSequentialGroup()
            .addGap(16, 16, 16)
            .addComponent(ErrorLabel,
javax.swing.GroupLayout.PREFERRED_SIZE, 286,
javax.swing.GroupLayout.PREFERRED_SIZE)))
            .addContainerGap(17, Short.MAX_VALUE))
    );
    layout.setVerticalGroup(
layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
    .addContainerGap()
    .addComponent(ErrorLabel,
javax.swing.GroupLayout.PREFERRED_SIZE, 44,
javax.swing.GroupLayout.PREFERRED_SIZE)

    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addComponent(ErrorReturn)
        .addContainerGap(8, Short.MAX_VALUE))
    );
    pack();
}// </editor-fold>//GEN-END:initComponents

private void ErrorReturnActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:event_ErrorReturnActionPerformed
    this.dispose();
}//GEN-LAST:event_ErrorReturnActionPerformed

// Set Error Msg
public void SetErrorMsg(String errMsg) {
    ErrorLabel.setText(errMsg);
}

// Variables declaration - do not modify//GEN-BEGIN:variables
private javax.swing.JLabel ErrorLabel;
private javax.swing.JButton ErrorReturn;
// End of variables declaration//GEN-END:variables
}

```

//FILE: TaskFriend/src/tamagui/InteractionScreen.form

```
<?xml version="1.0" encoding="UTF-8" ?>

<Form version="1.3" maxVersion="1.9"
type="org.netbeans.modules.form.forminfo.JFrameFormInfo">
  <Properties>
    <Property name="defaultCloseOperation" type="int" value="2"/>
    <Property name="title" type="java.lang.String" value="Avatar"/>
  </Properties>
  <SyntheticProperties>
    <SyntheticProperty name="formSizePolicy" type="int" value="1"/>
    <SyntheticProperty name="generateCenter" type="boolean"
value="false"/>
  </SyntheticProperties>
  <AuxValues>
    <AuxValue name="FormSettings_autoResourcing"
type="java.lang.Integer" value="0"/>
    <AuxValue name="FormSettings_autoSetComponentName"
type="java.lang.Boolean" value="false"/>
    <AuxValue name="FormSettings_generateFQN" type="java.lang.Boolean"
value="true"/>
    <AuxValue name="FormSettings_generateMnemonicsCode"
type="java.lang.Boolean" value="false"/>
    <AuxValue name="FormSettings_i18nAutoMode"
type="java.lang.Boolean" value="false"/>
    <AuxValue name="FormSettings_layoutCodeTarget"
type="java.lang.Integer" value="1"/>
    <AuxValue name="FormSettings_listenerGenerationStyle"
type="java.lang.Integer" value="0"/>
    <AuxValue name="FormSettings_variablesLocal"
type="java.lang.Boolean" value="false"/>
    <AuxValue name="FormSettings_variablesModifier"
type="java.lang.Integer" value="2"/>
  </AuxValues>

  <Layout>
    <DimensionLayout dim="0">
      <Group type="103" groupAlignment="0" attributes="0">
        <Group type="102" attributes="0">
          <EmptySpace max="32767" attributes="0"/>
          <Group type="103" groupAlignment="0" attributes="0">
            <Component id="HealthPanel" min="-2" max="-2"
attributes="0"/>
            <Group type="102" alignment="0" attributes="0">
```

```

        <EmptySpace min="-2" pref="11" max="-2"
attributes="0"/>
        <Group type="103" groupAlignment="0" max="-2"
attributes="0">
            <Component id="AvatarPanel" max="32767"
attributes="0"/>
            <Component id="StatScreenPanel" max="32767"
attributes="0"/>
        </Group>
    </Group>
</Group>
</Group>
</Group>
</DimensionLayout>
<DimensionLayout dim="1">
    <Group type="103" groupAlignment="0" attributes="0">
        <Group type="102" attributes="0">
            <EmptySpace min="-2" pref="26" max="-2" attributes="0"/>
            <Component id="HealthPanel" min="-2" pref="70" max="-2"
attributes="0"/>
            <EmptySpace type="unrelated" max="-2" attributes="0"/>
            <Component id="AvatarPanel" min="-2" max="-2"
attributes="0"/>
            <EmptySpace min="-2" pref="35" max="-2" attributes="0"/>
            <Component id="StatScreenPanel" min="-2" max="-2"
attributes="0"/>
            <EmptySpace pref="53" max="32767" attributes="0"/>
        </Group>
    </Group>
</DimensionLayout>
</Layout>
<SubComponents>
    <Container class="javax.swing.JPanel" name="HealthPanel">

        <Layout>
            <DimensionLayout dim="0">
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                    <Group type="102" alignment="0" attributes="0">
                        <EmptySpace min="-2" pref="14" max="-2"
attributes="0"/>
                    <Group type="103" groupAlignment="0" attributes="0">
                        <Group type="102" attributes="0">
                            <Component id="HealthBar" min="-2"
pref="389" max="-2" attributes="0"/>

```

```

                <EmptySpace pref="31" max="32767"
attributes="0"/>
            </Group>
            <Group type="102" attributes="0">
                <Component id="healthPointsLabel" min="-2"
max="-2" attributes="0"/>
                <EmptySpace max="32767" attributes="0"/>
                <Component id="healthIndicatorLabel"
min="-2" max="-2" attributes="0"/>
                <EmptySpace min="-2" pref="39" max="-2"
attributes="0"/>
            </Group>
        </Group>
    </Group>
</DimensionLayout>
<DimensionLayout dim="1">
    <Group type="103" groupAlignment="0" attributes="0">
        <Group type="102" alignment="1" attributes="0">
            <EmptySpace max="32767" attributes="0"/>
            <Group type="103" groupAlignment="3" attributes="0">
                <Component id="healthPointsLabel" alignment="3"
min="-2" max="-2" attributes="0"/>
                <Component id="healthIndicatorLabel"
alignment="3" min="-2" max="-2" attributes="0"/>
            </Group>
            <EmptySpace max="-2" attributes="0"/>
            <Component id="HealthBar" min="-2" pref="22"
max="-2" attributes="0"/>
            <EmptySpace min="-2" pref="29" max="-2"
attributes="0"/>
        </Group>
    </Group>
</DimensionLayout>
</Layout>
<SubComponents>
    <Component class="javax.swing.JLabel"
name="healthIndicatorLabel">
        <Properties>
            <Property name="font" type="java.awt.Font"
editor="org.netbeans.beaninfo.editors.FontEditor">
                <Font name="Helvetica Neue" size="18" style="0"/>
            </Property>
            <Property name="horizontalAlignment" type="int"
value="4"/>
        </Properties>
    </Component>
</SubComponents>

```

```

        <Property name="text" type="java.lang.String"
value="Healthy"/>
        <Property name="toolTipText" type="java.lang.String"
value="Healthy &gt;75, 50 < Sick &lt;75, 0<Weak &lt; 50, Death
== 0"/>
    </Properties>
</Component>
<Component class="javax.swing.JLabel"
name="healthPointsLabel">
    <Properties>
        <Property name="font" type="java.awt.Font"
editor="org.netbeans.beaninfo.editors.FontEditor">
            <Font name="Segoe UI" size="24" style="0"/>
        </Property>
        <Property name="text" type="java.lang.String"
value="Health Points:"/>
        <Property name="toolTipText" type="java.lang.String"
value="Health Can be derived as follows = (3*Fullness
+2*Happiness+1*Wellness)/6"/>
    </Properties>
</Component>
<Component class="javax.swing.JProgressBar" name="HealthBar">
    <Properties>
        <Property name="stringPainted" type="boolean"
value="true"/>
    </Properties>
</Component>
</SubComponents>
</Container>
<Container class="javax.swing.JPanel" name="AvatarPanel">
    <Properties>
        <Property name="background" type="java.awt.Color"
editor="org.netbeans.beaninfo.editors.ColorEditor">
            <Color blue="ff" green="ff" red="ff" type="rgb"/>
        </Property>
        <Property name="border" type="javax.swing.border.Border"
editor="org.netbeans.modules.form.editors2.BorderEditor">
            <Border
info="org.netbeans.modules.form.compat2.border.LineBorderInfo">
                <LineBorder/>
            </Border>
        </Property>
    </Properties>

    <Layout>

```

```

<DimensionLayout dim="0">
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        <Group type="102" alignment="0" attributes="0">
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attributes="0"/>
                <Component id="Interactfriend" min="-2" pref="335"
max="-2" attributes="0"/>
                    <EmptySpace pref="26" max="32767" attributes="0"/>
                </Group>
            </Group>
        </DimensionLayout>
        <DimensionLayout dim="1">
            <Group type="103" groupAlignment="0" attributes="0">
                <Group type="102" alignment="0" attributes="0">
                    <EmptySpace min="-2" pref="16" max="-2"
attributes="0"/>
                        <Component id="Interactfriend" min="-2" pref="327"
max="-2" attributes="0"/>
                            <EmptySpace pref="18" max="32767" attributes="0"/>
                        </Group>
                </Group>
            </DimensionLayout>
        </Layout>
        <SubComponents>
            <Component class="javax.swing.JLabel" name="Interactfriend">
                <Properties>
                    <Property name="horizontalAlignment" type="int"
value="0"/>
                </Properties>
            </Component>
        </SubComponents>
    </Container>
    <Container class="javax.swing.JPanel" name="StatScreenPanel">

        <Layout>
            <DimensionLayout dim="0">
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                    <EmptySpace min="0" pref="0" max="32767"
attributes="0"/>
                </Group>
            </DimensionLayout>
            <DimensionLayout dim="1">
                <Group type="103" groupAlignment="0" attributes="0">
                    <EmptySpace min="0" pref="207" max="32767"
attributes="0"/>
                </Group>
            </DimensionLayout>
        </Layout>
    </Container>

```

```
    </Group>
  </DimensionLayout>
</Layout>
</Container>
</SubComponents>
</Form>
```

//FILE: TaskFriend/src/tamogui/InteractionScreen.java

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt
 * to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JFrame.java
 * to edit this template
 */
package tamogui;

import java.awt.BorderLayout;
import java.awt.Image;
import java.util.concurrent.Executors;
import java.util.concurrent.ScheduledExecutorService;
import java.util.concurrent.TimeUnit;

import javax.swing.ImageIcon;

/**
 * Authors/Contributors in alphabetical order.
 * @author Arpita Sakshee
 * @author Christian Villanueva
 * @author Katrina Mai
 * @author Maya Louise Dagdag
 */
public final class InteractionScreen extends javax.swing.JFrame {
    private final TamaGuiHome home;
    private final StatScreen statsScreen;
    private int minuteTicks;

    /**
     * Creates new form InteractionScreen
     * @param tamaGuiHome
     */
    public InteractionScreen(TamaGuiHome tamaGuiHome) {
        initComponents();
        this.home = tamaGuiHome;
```

```

String avatar = home.getAvatarName();
String health = home.getHealth();
String accessory = home.getAccessory();
String avatarPath = "Images/Avatar/" + health + "/" +
accessory + "/" + avatar + ".png";
ImageIcon iconLogo = new ImageIcon(new
ImageIcon(avatarPath).getImage().getScaledInstance(200, 300,
Image.SCALE_DEFAULT));
Interactfriend.setIcon(iconLogo);

statsScreen = new StatScreen(); // Initialize the instance
StatScreenPanel.setLayout(new BorderLayout()); // Set layout
manager for StatScreenPanel
StatScreenPanel.add(statsScreen.getContentPane(),
BorderLayout.CENTER); // Add StatScreen to StatScreenPanel
this.setTitle(avatar);
ScheduledExecutorService executor =
Executors.newSingleThreadScheduledExecutor();
executor.scheduleAtFixedRate(() -> {
    // Your task that needs to run every minute
    //System.out.println("Application is running at " + new
java.util.Date());

    this.minuteTicks++;
    if (this.minuteTicks%30 == 0) {
        System.out.println("Decrement Wellness at " + new
java.util.Date());
        this.updateWellness(-1);
    }
    if (this.minuteTicks%10 == 0) {
        System.out.println("Decrement Fullness at " + new
java.util.Date());
        this.updateFullness(-1);
    }
    if (this.minuteTicks%5 == 0) {
        System.out.println("Decrement Happiness at " + new
java.util.Date());
        this.updateHappiness(-1);
    }
    //reset timer after 2 hours
    if (this.minuteTicks > 120){
        this.minuteTicks = 0;
    }
}, 0, 1, TimeUnit.SECONDS);

```

```

        this.updateWellness(100);
        this.updateFullness(100);
        this.updateHappiness(100);
    }

    public void updateAvatar(String avatarImagePath, String
avatarName){
    if (avatarName == null || avatarName.isEmpty()){
        return;
    }
    ImageIcon iconLogo = new ImageIcon(new
ImageIcon(avatarImagePath).getImage().getScaledInstance(200, 300,
Image.SCALE_DEFAULT));
    Interactfriend.setIcon(iconLogo);
    this.setTitle/avatarName);
}

private void updateHealth() {
    int healthValue=
(3*statsScreen.getFullness()+2*statsScreen.getHappiness() +
statsScreen.getWellness())/6;
    this.home.updateHealth(healthValue);
    this.HealthBar.setValue(healthValue);
    if (healthValue > 75) {
        healthIndicatorLabel.setText("Healthy");
        this.home.setHealth("Healthy");
    } else if (healthValue > 50) {
        healthIndicatorLabel.setText("Weak");
        this.home.setHealth("Weak");
    } else if (healthValue > 0 ){
        healthIndicatorLabel.setText("Sick");
        this.home.setHealth("Sick");
    } else{
        healthIndicatorLabel.setText("Dead");
        this.home.setHealth("Dead");
    }
    String avatar = home.getAvatarName();
    String health = home.getHealth();
    String accessory = home.getAccessory();
    String avatarImagePath = "Images/Avatar/" + health + "/" +
accessory + "/" + avatar + ".png";
    System.out.println("Selecting avatar: " + avatarImagePath);
    this.home.updateAvatar(avatarImagePath, avatar);
    System.out.println("Updating Health: " + health);
}

```

```
public void updateFullness(int points) {
    statsScreen.updateFullness(points);
    updateHealth();
}

public void updateWellness(int points) {
    statsScreen.updateWellness(points);
    updateHealth();
}

public void updateHappiness(int points) {
    statsScreen.updateHappiness(points);
    updateHealth();
}

/**
 * This method is called from within the constructor to initialize
the form.
 * WARNING: Do NOT modify this code. The content of this method is
always
 * regenerated by the Form Editor.
 */
@SuppressWarnings("unchecked")
// <editor-fold defaultstate="collapsed" desc="Generated
Code">//GEN-BEGIN:initComponents
private void initComponents() {

    HealthPanel = new javax.swing.JPanel();
    healthIndicatorLabel = new javax.swing.JLabel();
    healthPointsLabel = new javax.swing.JLabel();
    HealthBar = new javax.swing.JProgressBar();
    AvatarPanel = new javax.swing.JPanel();
    Interactfriend = new javax.swing.JLabel();
    StatScreenPanel = new javax.swing.JPanel();

setDefaultCloseOperation(javax.swing.WindowConstants.DISPOSE_ON_CLOSE)
;
setTitle("Avatar");

    healthIndicatorLabel.setFont(new java.awt.Font("Helvetica
Neue", 0, 18)); // NOI18N
```

```

healthIndicatorLabel.setHorizontalAlignment(javax.swing.SwingConstantsConstants
.RIGHT);
    healthIndicatorLabel.setText("Healthy");
    healthIndicatorLabel.setToolTipText("Healthy >75, 50 < Sick
<75, 0<Weak < 50, Death == 0");

    healthPointsLabel.setFont(new java.awt.Font("Segoe UI", 0,
24)); // NOI18N
    healthPointsLabel.setText("Health Points:");
    healthPointsLabel.setToolTipText("Health Can be derived as
follows = (3*Fullness +2*Happiness+1*Wellness)/6");

    HealthBar.setStringPainted(true);

    javax.swing.GroupLayout HealthPanelLayout = new
javax.swing.GroupLayout(HealthPanel);
    HealthPanel.setLayout(HealthPanelLayout);
    HealthPanelLayout.setHorizontalGroup(
        HealthPanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment
.LEADING)
            .addGroup(HealthPanelLayout.createSequentialGroup()
                .addGap(14, 14, 14)
                .addGroup(HealthPanelLayout.createSequentialGroup()
                    .addGroup(HealthPanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment
.LEADING)
                        .addGroup(HealthPanelLayout.createSequentialGroup()
                            .addGap(389, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                            .addGap(389, javax.swing.GroupLayout.PREFERRED_SIZE))
                        .addGroup(HealthPanelLayout.createSequentialGroup()
                            .addGap(31, javax.swing.GroupLayout.PREFERRED_SIZE, Short.MAX_VALUE)))
                    .addGroup(HealthPanelLayout.createSequentialGroup()
                        .addComponent(HealthBar, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addGap(39, 39, 39)))
                .addGap(39, 39, 39)))
            .addGroup(HealthPanelLayout.createSequentialGroup()
                .addGap(39, 39, 39)
                .addComponent(healthPointsLabel))

        .addGroup(HealthPanelLayout.createSequentialGroup()
            .addGap(Short.MAX_VALUE)
            .addComponent(healthIndicatorLabel)
            .addGap(39, 39, 39)))
    );
    HealthPanelLayout.setVerticalGroup(

```

```

HealthPanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
HealthPanelLayout.createSequentialGroup()
    .addGapContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE)

    .addGroup(HealthPanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
        .addComponent(healthPointsLabel)
        .addComponent(healthIndicatorLabel))

    .addGapPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addComponent(HealthBar,
javax.swing.GroupLayout.PREFERRED_SIZE, 22,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGapGap(29, 29, 29))
);

AvatarPanel.setBackground(new java.awt.Color(255, 255, 255));

AvatarPanel.setBorder(javax.swing.BorderFactory.createLineBorder(new
java.awt.Color(0, 0, 0)));

Interactfriend.setHorizontalAlignment(javax.swing.SwingConstants.CENTER);

    javax.swing.GroupLayout AvatarPanelLayout = new
javax.swing.GroupLayout(AvatarPanel);
    AvatarPanel.setLayout(AvatarPanelLayout);
    AvatarPanelLayout.setHorizontalGroup(
        AvatarPanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(AvatarPanelLayout.createSequentialGroup()
                .addGapGap(29, 29, 29)
                .addComponent(Interactfriend,
javax.swing.GroupLayout.PREFERRED_SIZE, 335,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addGapContainerGap(26, Short.MAX_VALUE))
    );
    AvatarPanelLayout.setVerticalGroup(

```



```

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
            .addComponent(AvatarPanel,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
            .addComponent(StatScreenPanel,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))))))
);
layout.setVerticalGroup(
layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addGroup(layout.createSequentialGroup()
.addGap(26, 26, 26)
.addComponent(HealthPanel,
javax.swing.GroupLayout.PREFERRED_SIZE, 70,
javax.swing.GroupLayout.PREFERRED_SIZE)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
.addComponent(AvatarPanel,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
.addGap(35, 35, 35)
.addComponent(StatScreenPanel,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
.addContainerGap(53, Short.MAX_VALUE))
);

pack();
}// </editor-fold>//GEN-END:initComponents

// Variables declaration - do not modify//GEN-BEGIN:variables
private javax.swing.JPanel AvatarPanel;
private javax.swing.JProgressBar HealthBar;
private javax.swing.JPanel HealthPanel;
private javax.swing.JLabel Interactfriend;
private javax.swing.JPanel StatScreenPanel;
private javax.swing.JLabel healthIndicatorLabel;
private javax.swing.JLabel healthPointsLabel;
// End of variables declaration//GEN-END:variables

```

}

//FILE: TaskFriend/src/tamagui/InventoryAccessory.form

```
<?xml version="1.0" encoding="UTF-8" ?>

<Form version="1.3" maxVersion="1.9"
type="org.netbeans.modules.form.forminfo.JFrameFormInfo">
  <Properties>
    <Property name="defaultCloseOperation" type="int" value="2"/>
    <Property name="title" type="java.lang.String" value="TaskFriend
Accessory's"/>
  </Properties>
  <SyntheticProperties>
    <SyntheticProperty name="formSizePolicy" type="int" value="1"/>
    <SyntheticProperty name="generateCenter" type="boolean"
value="false"/>
  </SyntheticProperties>
  <AuxValues>
    <AuxValue name="FormSettings_autoResourcing"
type="java.lang.Integer" value="0"/>
    <AuxValue name="FormSettings_autoSetComponentName"
type="java.lang.Boolean" value="false"/>
    <AuxValue name="FormSettings_generateFQN" type="java.lang.Boolean"
value="true"/>
    <AuxValue name="FormSettings_generateMnemonicsCode"
type="java.lang.Boolean" value="false"/>
    <AuxValue name="FormSettings_i18nAutoMode"
type="java.lang.Boolean" value="false"/>
    <AuxValue name="FormSettings_layoutCodeTarget"
type="java.lang.Integer" value="1"/>
    <AuxValue name="FormSettings_listenerGenerationStyle"
type="java.lang.Integer" value="0"/>
    <AuxValue name="FormSettings_variablesLocal"
type="java.lang.Boolean" value="false"/>
    <AuxValue name="FormSettings_variablesModifier"
type="java.lang.Integer" value="2"/>
  </AuxValues>

  <Layout>
    <DimensionLayout dim="0">
      <Group type="103" groupAlignment="0" attributes="0">
        <Group type="102" alignment="0" attributes="0">
          <Component id="Accessory" max="32767" attributes="0"/>
```

```

        <EmptySpace max="-2" attributes="0"/>
    </Group>
</Group>
</DimensionLayout>
<DimensionLayout dim="1">
    <Group type="103" groupAlignment="0" attributes="0">
        <Group type="102" alignment="0" attributes="0">
            <EmptySpace max="-2" attributes="0"/>
            <Component id="Accessory" min="-2" max="-2"
attributes="0"/>
                <EmptySpace max="32767" attributes="0"/>
            </Group>
        </Group>
    </DimensionLayout>
</Layout>
<SubComponents>
    <Container class="javax.swing.JPanel" name="Accessory">

        <Layout>
            <DimensionLayout dim="0">
                <Group type="103" groupAlignment="0" attributes="0">
                    <Group type="102" alignment="0" attributes="0">
                        <EmptySpace max="-2" attributes="0"/>
                        <Component id="AccessoryPanel" min="-2" pref="150"
max="-2" attributes="0"/>
                            <Group type="103" groupAlignment="0" attributes="0">
                                <Group type="102" alignment="0" attributes="0">
                                    <EmptySpace min="-2" pref="29" max="-2"
attributes="0"/>
                                    <Component id="Cost" min="-2" pref="35"
max="-2" attributes="0"/>
                                    <EmptySpace min="-2" pref="28" max="-2"
attributes="0"/>
                                    <Component id="CostValue" min="-2" pref="27"
max="-2" attributes="0"/>
                                </Group>
                                <Group type="102" alignment="0" attributes="0">
                                    <EmptySpace min="-2" pref="18" max="-2"
attributes="0"/>
                                </Group>
                            <Group type="103" groupAlignment="0"
max="-2" attributes="0">
                                <Component id="AccessoryImage" min="-2"
pref="130" max="-2" attributes="0"/>
                                <Group type="102" attributes="0">

```

```

        <Component id="UseItem" max="32767"
attributes="0"/>
                <EmptySpace min="-2" pref="29"
max="-2" attributes="0"/>
            </Group>
        </Group>
    </Group>
    <EmptySpace pref="21" max="32767" attributes="0"/>
</Group>
</Group>
</DimensionLayout>
<DimensionLayout dim="1">
    <Group type="103" groupAlignment="0" attributes="0">
        <Group type="102" alignment="1" attributes="0">
            <EmptySpace max="-2" attributes="0"/>
            <Group type="103" groupAlignment="1" attributes="0">
                <Component id="AccessoryPanel" alignment="0"
pref="297" max="32767" attributes="0"/>
                <Group type="102" alignment="0" attributes="0">
                    <Component id="AccessoryImage" max="32767"
attributes="0"/>
                    <EmptySpace min="-2" pref="32" max="-2"
attributes="0"/>
                <Group type="103" groupAlignment="3"
attributes="0">
                    <Component id="Cost" alignment="3"
min="-2" pref="21" max="-2" attributes="0"/>
                    <Component id="CostValue" alignment="3"
min="-2" max="-2" attributes="0"/>
                </Group>
                <EmptySpace max="-2" attributes="0"/>
                <Component id="UseItem" min="-2" max="-2"
attributes="0"/>
            </Group>
        </Group>
        <EmptySpace min="-2" pref="18" max="-2"
attributes="0"/>
    </Group>
    </Group>
</DimensionLayout>
</Layout>
<SubComponents>
    <Container class="javax.swing.JScrollPane"
name="AccessoryPanel">

```

```

<AuxValues>
    <AuxValue name="autoScrollPane" type="java.lang.Boolean"
value="true"/>
</AuxValues>

<Layout
class="org.netbeans.modules.form.compat2.layouts.support.JScrollPaneSu
pportLayout"/>
<SubComponents>
    <Component class="javax.swing.JList" name="AccessoryList">
        <Properties>
            <Property name="model" type="javax.swing.ListModel"
editor="org.netbeans.modules.form.editors2.ListModelEditor">
                <StringArray count="0"/>
            </Property>
        </Properties>
        <Events>
            <EventHandler event="valueChanged"
listener="javax.swing.event.ListSelectionListener"
parameters="javax.swing.event.ListSelectionEvent"
handler="AccessoryListValueChanged"/>
        </Events>
        <AuxValues>
            <AuxValue name="JavaCodeGenerator_TypeParameters"
type="java.lang.String" value="&lt;String&gt;"/>
        </AuxValues>
    </Component>
</SubComponents>
</Container>
<Component class="javax.swing.JButton" name="UseItem">
    <Properties>
        <Property name="text" type="java.lang.String"
value="Equip"/>
        <Property name="toolTipText" type="java.lang.String"
value="Dress your TaskFriend with the selected accessory."/>
    <Properties>
        <Events>
            <EventHandler event="actionPerformed"
listener="java.awt.event.ActionListener"
parameters="java.awt.event.ActionEvent"
handler="UseItemActionPerformed"/>
        </Events>
    </Component>
    <Component class="javax.swing.JLabel" name="AccessoryImage">
</Component>

```

```

<Component class="javax.swing.JLabel" name="Cost">
    <Properties>
        <Property name="text" type="java.lang.String"
value="Cost:"/>
    </Properties>
</Component>
<Component class="javax.swing.JLabel" name="CostValue">
    <Properties>
        <Property name="text" type="java.lang.String" value="00"/>
    </Properties>
</Component>
</SubComponents>
</Container>
</SubComponents>
</Form>

```

//FILE: TaskFriend/src/tamagui/InventoryAccessory.java

```

/*
 * Click
nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt
to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JFrame.java
to edit this template
 */
package tamagui;

import java.awt.Image;
import javax.swing.ImageIcon;

/**
 * Authors/Contributors in alphabetical order.
 * @author Arpita Sakshee
 * @author Christian Villanueva
 * @author Katrina Mai
 * @author Maya Louise Dagdag
 */
public final class InventoryAccessory extends javax.swing.JFrame {
    private final TamaGuiHome home;
    private final Item[] inventory;
    /**
     * Creates new form AccessoryInventory
     * @param home
     */
    public InventoryAccessory(TamaGuiHome home) {

```

```

        initComponents();
        this.home = home;
        Item [] items = {
            new Item("Default",0,0,0),
            new Item("Bow",30,0,0),
            new Item("Glasses",50,0,0),
            new Item("Duck",100,0,0),
        };
        addAccessories(items);
        this.inventory = items;
        Cost.setVisible(false);
        CostValue.setVisible(false);
    }

    public void addAccessories(Item[] items){
        AccessoryList.setModel(new
javax.swing.AbstractListModel<String>() {
            @Override
            public int getSize() { return items.length; }
            @Override
            public String getElementAt(int i) { return
items[i].getName(); }
        });
    }

    /**
     * This method is called from within the constructor to initialize
     * the form.
     * WARNING: Do NOT modify this code. The content of this method is
     * always
     * regenerated by the Form Editor.
     */
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated
Code">//GEN-BEGIN:initComponents
    private void initComponents() {

        Accessory = new javax.swing.JPanel();
        AccessoryPanel = new javax.swing.JScrollPane();
        AccessoryList = new javax.swing.JList<>();
        UseItem = new javax.swing.JButton();
        AccessoryImage = new javax.swing.JLabel();
        Cost = new javax.swing.JLabel();
        CostValue = new javax.swing.JLabel();

```

```

setDefaultCloseOperation(javax.swing.WindowConstants.DISPOSE_ON_CLOSE)
;
setTitle("TaskFriend Accessory's");

AccessoryList.addListSelectionListener(new
javax.swing.event.ListSelectionListener() {
    public void
valueChanged(javax.swing.event.ListSelectionEvent evt) {
        AccessoryListValueChanged(evt);
    }
});
AccessoryPanel.setViewportView(AccessoryList);

UseItem.setText("Equip");
UseItem.setToolTipText("Dress your TaskFriend with the
selected accessory.");
UseItem.addActionListener(new java.awt.event.ActionListener()
{
    public void actionPerformed(java.awt.event.ActionEvent
evt) {
        UseItemActionPerformed(evt);
    }
});
Cost.setText("Cost:");

CostValue.setText("00");

javax.swing.GroupLayout AccessoryLayout = new
javax.swing.GroupLayout(Accessory);
Accessory.setLayout(AccessoryLayout);
AccessoryLayout.setHorizontalGroup(
AccessoryLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.
LEADING)
    .addGroup(AccessoryLayout.createSequentialGroup()
        .addContainerGap()
        .addComponent(AccessoryPanel,
javax.swing.GroupLayout.PREFERRED_SIZE, 150,
javax.swing.GroupLayout.PREFERRED_SIZE)
    )
    .addGroup(AccessoryLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.
LEADING)
        .addGroup(AccessoryLayout.createSequentialGroup()

```

```
        .addGap(29, 29, 29)
        .addComponent(Cost,
javax.swing.GroupLayout.PREFERRED_SIZE, 35,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(28, 28, 28)
        .addComponent(CostValue,
javax.swing.GroupLayout.PREFERRED_SIZE, 27,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGroup(AccessoryLayout.createSequentialGroup()
        .addGap(18, 18, 18)

.addGroup(AccessoryLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
        .addComponent(AccessoryImage,
javax.swing.GroupLayout.PREFERRED_SIZE, 130,
javax.swing.GroupLayout.PREFERRED_SIZE)

.addGroup(AccessoryLayout.createSequentialGroup()
        .addComponent(UseItem,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
        .addGap(29, 29, 29)))))
        .addContainerGap(21, Short.MAX_VALUE))
);

AccessoryLayout.setVerticalGroup(
AccessoryLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
AccessoryLayout.createSequentialGroup()
        .addContainerGap()

.addGroup(AccessoryLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
        .addComponent(AccessoryPanel,
javax.swing.GroupLayout.Alignment.LEADING,
javax.swing.GroupLayout.DEFAULT_SIZE, 297, Short.MAX_VALUE)

.addGroup(javax.swing.GroupLayout.Alignment.LEADING,
AccessoryLayout.createSequentialGroup()
        .addComponent(AccessoryImage,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
        .addGap(32, 32, 32)
```

```

        .addGroup(AccessoryLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(Cost,
                javax.swing.GroupLayout.PREFERRED_SIZE, 21,
                javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(CostValue))

        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                .addComponent(UseItem)))
        .addGap(18, 18, 18))
    );

    javax.swing.GroupLayout layout = new
    javax.swing.GroupLayout(getContentPane());
    getContentPane().setLayout(layout);
    layout.setHorizontalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addComponent(Accessory,
                javax.swing.GroupLayout.DEFAULT_SIZE,
                javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addContainerGap())
        );
    layout.setVerticalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addContainerGap()
                .addComponent(Accessory,
                javax.swing.GroupLayout.PREFERRED_SIZE,
                javax.swing.GroupLayout.DEFAULT_SIZE,
                javax.swing.GroupLayout.PREFERRED_SIZE)
                .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE,
                Short.MAX_VALUE))
        );
    }

    pack();
}// </editor-fold>//GEN-END:initComponents

private void
AccessoryListValueChanged(javax.swing.event.ListSelectionEvent evt)
{//GEN-FIRST:event_AccessoryListValueChanged
    String accessory = AccessoryList.getSelectedValue();
}

```

```

        String avatar = home.getAvatarName();
        String health = home.getHealth();
        String accessoryIconPath = "Images/Avatar/" + health + "/" +
accessory + "/" + avatar + ".png";
        ImageIcon accessoryIcon = new ImageIcon(new
ImageIcon(accessoryIconPath).getImage().getScaledInstance(120, 200,
Image.SCALE_DEFAULT));
        AccessoryImage.setIcon(accessoryIcon);
        AccessoryImage.setVisible(true);
        // Find item from inventory
        Item selectedItem = this.inventory[0];
        boolean found=false;
        for (Item item : this.inventory) {
            if (accessory.equals(item.getName())) {
                selectedItem = item;
                found = true;
            }
        }
        if (found == false) {
            Error error = new Error();
            error.SetErrorMsg("Could not load inventory");
            error.setVisible(true);
            return;
        }
        CostValue.setText(String.valueOf(selectedItem.getCost()));
        Cost.setVisible(true);
        CostValue.setVisible(true);
    }//GEN-LAST:event_AccessoryListValueChanged

    private void UseItemActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:event_UseItemActionPerformed
        String accessory = AccessoryList.getSelectedValue();
        if (accessory == null || accessory.isEmpty()){
            Error error = new Error();
            error.SetErrorMsg("Select the accessory");
            error.setVisible(true);
            return;
        }
        // Find item from inventory
        Item selectedItem = this.inventory[0];
        boolean found=false;
        for (Item item : this.inventory) {
            if (accessory.equals(item.getName())) {
                selectedItem = item;
                found = true;
            }
        }
        if (found == false) {
            Error error = new Error();
            error.SetErrorMsg("Could not load inventory");
            error.setVisible(true);
            return;
        }
        CostValue.setText(String.valueOf(selectedItem.getCost()));
        Cost.setVisible(true);
        CostValue.setVisible(true);
    }//GEN-LAST:event_UseItemActionPerformed
}

```

```

        }
    }
    if (found == false) {
        Error error = new Error();
        error.SetErrorMsg("Could not load inventory");
        error.setVisible(true);
        return;
    }
    int availablePoints = this.home.getPoints();
    if (availablePoints < selectedItem.getCost()) {
        Error error = new Error();
        error.SetErrorMsg("Insufficient points");
        error.setVisible(true);
        return;
    } else {
        this.home.addPoints(-1*selectedItem.getCost());
    }
    String avatar = home.getAvatarName();
    String health = home.getHealth();
    String avatarImagePath = "Images/Avatar/" + health + "/" +
accessory + "/" + avatar + ".png";
    System.out.println("Selecting avatar: " + avatarImagePath + " with accessory: " + accessory);
    this.home.updateAvatar(avatarImagePath, avatar);
    home.setAccessory(accessory);
    this.setVisible(false);
    this.dispose();
}//GEN-LAST:event_useItemActionPerformed

// Variables declaration - do not modify//GEN-BEGIN:variables
private javax.swing.JPanel Accessory;
private javax.swing.JLabel AccessoryImage;
private javax.swing.JList<String> AccessoryList;
private javax.swing.JScrollPane AccessoryPanel;
private javax.swing.JLabel Cost;
private javax.swing.JLabel CostValue;
private javax.swing.JButton UseItem;
// End of variables declaration//GEN-END:variables
}

```

//FILE: TaskFriend/src/tamagui/InventoryAvatar.form

```
<?xml version="1.0" encoding="UTF-8" ?>

<Form version="1.3" maxVersion="1.9"
type="org.netbeans.modules.form.forminfo.JFrameFormInfo">
    <Properties>
        <Property name="defaultCloseOperation" type="int" value="2"/>
        <Property name="title" type="java.lang.String" value="Change
TaskFriend"/>
    </Properties>
    <SyntheticProperties>
        <SyntheticProperty name="formSizePolicy" type="int" value="1"/>
        <SyntheticProperty name="generateCenter" type="boolean"
value="false"/>
    </SyntheticProperties>
    <AuxValues>
        <AuxValue name="FormSettings_autoResourcing"
type="java.lang.Integer" value="0"/>
        <AuxValue name="FormSettings_autoSetComponentName"
type="java.lang.Boolean" value="false"/>
        <AuxValue name="FormSettings_generateFQN" type="java.lang.Boolean"
value="true"/>
        <AuxValue name="FormSettings_generateMnemonicsCode"
type="java.lang.Boolean" value="false"/>
        <AuxValue name="FormSettings_i18nAutoMode"
type="java.lang.Boolean" value="false"/>
        <AuxValue name="FormSettings_layoutCodeTarget"
type="java.lang.Integer" value="1"/>
        <AuxValue name="FormSettings_listenerGenerationStyle"
type="java.lang.Integer" value="0"/>
        <AuxValue name="FormSettings_variablesLocal"
type="java.lang.Boolean" value="false"/>
        <AuxValue name="FormSettings_variablesModifier"
type="java.lang.Integer" value="2"/>
    </AuxValues>

    <Layout>
        <DimensionLayout dim="0">
            <Group type="103" groupAlignment="0" attributes="0">
                <Group type="102" alignment="0" attributes="0">
                    <Component id="Avatar" max="32767" attributes="0"/>
                    <EmptySpace max="-2" attributes="0"/>
                </Group>
            </Group>
        </DimensionLayout>
    </Layout>

```

```

    </DimensionLayout>
<DimensionLayout dim="1">
    <Group type="103" groupAlignment="0" attributes="0">
        <Group type="102" alignment="0" attributes="0">
            <EmptySpace max="-2" attributes="0"/>
            <Component id="Avatar" min="-2" max="-2"
attributes="0"/>
                <EmptySpace max="32767" attributes="0"/>
            </Group>
        </Group>
    </DimensionLayout>
</Layout>
<SubComponents>
    <Container class="javax.swing.JPanel" name="Avatar">

        <Layout>
            <DimensionLayout dim="0">
                <Group type="103" groupAlignment="0" attributes="0">
                    <Group type="102" alignment="0" attributes="0">
                        <EmptySpace max="-2" attributes="0"/>
                        <Component id="AvatarPanel" min="-2" pref="150"
max="-2" attributes="0"/>
                            <Group type="103" groupAlignment="0" attributes="0">
                                <Group type="102" alignment="0" attributes="0">
                                    <EmptySpace min="-2" pref="29" max="-2"
attributes="0"/>
                                    <Component id="Cost" min="-2" pref="35"
max="-2" attributes="0"/>
                                    <EmptySpace min="-2" pref="28" max="-2"
attributes="0"/>
                                    <Component id="CostValue" min="-2" pref="27"
max="-2" attributes="0"/>
                                </Group>
                                <Group type="102" alignment="0" attributes="0">
                                    <EmptySpace min="-2" pref="18" max="-2"
attributes="0"/>
                                </Group>
                                <Group type="103" groupAlignment="0"
attributes="0">
                                    <Component id="SelectAvatar" min="-2"
max="-2" attributes="0"/>
                                    <Component id="AvatarImage" min="-2"
pref="130" max="-2" attributes="0"/>
                                </Group>
                            </Group>
                        </Group>
                    </Group>
                </DimensionLayout>
            </Layout>
        </Container>
    </SubComponents>

```

```

        <EmptySpace pref="13" max="32767" attributes="0"/>
    </Group>
</Group>
</DimensionLayout>
<DimensionLayout dim="1">
    <Group type="103" groupAlignment="0" attributes="0">
        <Group type="102" alignment="1" attributes="0">
            <EmptySpace max="-2" attributes="0"/>
            <Group type="103" groupAlignment="1" attributes="0">
                <Component id="AvatarPanel" alignment="0"
pref="297" max="32767" attributes="0"/>
                <Group type="102" alignment="0" attributes="0">
                    <Component id="AvatarImage" max="32767"
attributes="0"/>
                    <EmptySpace min="-2" pref="32" max="-2"
attributes="0"/>
                    <Group type="103" groupAlignment="3"
attributes="0">
                        <Component id="Cost" alignment="3"
min="-2" pref="21" max="-2" attributes="0"/>
                        <Component id="CostValue" alignment="3"
min="-2" max="-2" attributes="0"/>
                    </Group>
                    <EmptySpace max="-2" attributes="0"/>
                    <Component id="SelectAvatar" min="-2"
max="-2" attributes="0"/>
                </Group>
            </Group>
            <EmptySpace min="-2" pref="18" max="-2"
attributes="0"/>
        </Group>
    </Group>
</DimensionLayout>
</Layout>
<SubComponents>
    <Container class="javax.swing.JScrollPane" name="AvatarPanel">
        <AuxValues>
            <AuxValue name="autoScrollPane" type="java.lang.Boolean"
value="true"/>
        </AuxValues>

        <Layout
class="org.netbeans.modules.form.compat2.layouts.support.JScrollPaneSu
pportLayout"/>
        <SubComponents>

```

```
<Component class="javax.swing.JList" name="AvatarList">
    <Properties>
        <Property name="model" type="javax.swing.ListModel"
editor="org.netbeans.modules.form.editors2.ListModelEditor">
            <StringArray count="0"/>
        </Property>
    </Properties>
    <Events>
        <EventHandler event="valueChanged"
listener="javax.swing.event.ListSelectionListener"
parameters="javax.swing.event.ListSelectionEvent"
handler="AvatarListValueChanged"/>
    </Events>
    <AuxValues>
        <AuxValue name="JavaCodeGenerator_TypeParameters"
type="java.lang.String" value="&lt;String&gt;"/>
    </AuxValues>
    </Component>
</SubComponents>
</Container>
<Component class="javax.swing.JButton" name="SelectAvatar">
    <Properties>
        <Property name="text" type="java.lang.String"
value="Select TaskFriend"/>
        <Property name="toolTipText" type="java.lang.String"
value="Select Task Friend to change."/>
    </Properties>
    <Events>
        <EventHandler event="actionPerformed"
listener="java.awt.event.ActionListener"
parameters="java.awt.event.ActionEvent"
handler="SelectAvatarActionPerformed"/>
    </Events>
    </Component>
<Component class="javax.swing.JLabel" name="AvatarImage">
</Component>
<Component class="javax.swing.JLabel" name="Cost">
    <Properties>
        <Property name="text" type="java.lang.String"
value="Cost:"/>
    </Properties>
    </Component>
<Component class="javax.swing.JLabel" name="CostValue">
    <Properties>
        <Property name="text" type="java.lang.String" value="00"/>
    </Properties>

```

```
    </Properties>
  </Component>
</SubComponents>
</Container>
</SubComponents>
</Form>
```

//FILE: TaskFriend/src/tamagui/InventoryAvatar.java

```
/*
 * Click
nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt
to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JFrame.java
to edit this template
 */
package tamagui;

import java.awt.Image;
import javax.swing.ImageIcon;

/**
 * Authors/Contributors in alphabetical order.
 * @author Arpita Sakshee
 * @author Christian Villanueva
 * @author Katrina Mai
 * @author Maya Louise Dagdag
 */
public final class InventoryAvatar extends javax.swing.JFrame {
    private final TamaGuiHome home;
    private final Item[] inventory;
    /**
     * Creates new form InventoryAvatar
     * @param home
     */
    public InventoryAvatar(TamaGuiHome home) {
        initComponents();
        this.home = home;
        Item [] items = {
            new Item("Ozzo",30,0,0),
            new Item("Shey",30,0,0),
            new Item("Milo",30,0,0),
            new Item("Petunia",30,0,0),
            new Item("Tee",30,0,0),
        };
    }
}
```

```

        addAvatars(items);
        this.inventory = items;
        Cost.setVisible(false);
        CostValue.setVisible(false);
    }

    public void addAvatars(Item[] items){
        AvatarList.setModel(new javax.swing.AbstractListModel<String>()
{
        @Override
        public int getSize() { return items.length; }
        @Override
        public String getElementAt(int i) { return
items[i].getName(); }
    });
}

/**
 * This method is called from within the constructor to initialize
the form.
 * WARNING: Do NOT modify this code. The content of this method is
always
 * regenerated by the Form Editor.
 */
@SuppressWarnings("unchecked")
// <editor-fold defaultstate="collapsed" desc="Generated
Code">//GEN-BEGIN:initComponents
private void initComponents() {

    Avatar = new javax.swing.JPanel();
    AvatarPanel = new javax.swing.JScrollPane();
    AvatarList = new javax.swing.JList<>();
    SelectAvatar = new javax.swing.JButton();
    AvatarImage = new javax.swing.JLabel();
    Cost = new javax.swing.JLabel();
    CostValue = new javax.swing.JLabel();

    setDefaultCloseOperation(javax.swing.WindowConstants.DISPOSE_ON_CLOSE);
;
    setTitle("Change TaskFriend");

    AvatarList.addListSelectionListener(new
javax.swing.event.ListSelectionListener() {

```

```

        public void
valueChanged(javax.swing.event.ListSelectionEvent evt) {
            AvatarListValueChanged(evt);
        }
    });
AvatarPanel.setViewportView(AvatarList);

SelectAvatar.setText("Select TaskFriend");
SelectAvatar.setToolTipText("Select Task Friend to change.");
SelectAvatar.addActionListener(new
java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent
evt) {
        SelectAvatarActionPerformed(evt);
    }
});
Cost.setText("Cost:");

CostValue.setText("00");

javax.swing.GroupLayout AvatarLayout = new
javax.swing.GroupLayout(Avatar);
Avatar.setLayout(AvatarLayout);
AvatarLayout.setHorizontalGroup(
AvatarLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addGroup(AvatarLayout.createSequentialGroup()
.addContainerGap()
.addComponent(AvatarPanel,
javax.swing.GroupLayout.PREFERRED_SIZE, 150,
javax.swing.GroupLayout.PREFERRED_SIZE)

.addGroup(AvatarLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addGroup(AvatarLayout.createSequentialGroup()
.addGap(29, 29, 29)
.addComponent(Cost,
javax.swing.GroupLayout.PREFERRED_SIZE, 35,
javax.swing.GroupLayout.PREFERRED_SIZE)
.addGap(28, 28, 28)
.addComponent(CostValue,
javax.swing.GroupLayout.PREFERRED_SIZE, 27,
javax.swing.GroupLayout.PREFERRED_SIZE))

```

```
        .addGroup(AvatarLayout.createSequentialGroup()
                  .addGap(18, 18, 18))

        .addGroup(AvatarLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                  .addComponent(SelectAvatar)
                  .addComponent(AvatarImage,
javax.swing.GroupLayout.PREFERRED_SIZE, 130,
javax.swing.GroupLayout.PREFERRED_SIZE)))
                  .addContainerGap(13, Short.MAX_VALUE))
    );
    AvatarLayout.setVerticalGroup(
AvatarLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                  .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
AvatarLayout.createSequentialGroup()
                  .addContainerGap()

        .addGroup(AvatarLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
                  .addComponent(AvatarPanel,
javax.swing.GroupLayout.Alignment.LEADING,
javax.swing.GroupLayout.DEFAULT_SIZE, 297, Short.MAX_VALUE)

        .addGroup(javax.swing.GroupLayout.Alignment.LEADING,
AvatarLayout.createSequentialGroup()
                  .addComponent(AvatarImage,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                  .addGap(32, 32, 32)

        .addGroup(AvatarLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                  .addComponent(Cost,
javax.swing.GroupLayout.PREFERRED_SIZE, 21,
javax.swing.GroupLayout.PREFERRED_SIZE)
                  .addComponent(CostValue))

        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                  .addComponent(SelectAvatar)))
                  .addGap(18, 18, 18))
    );
```

```

        javax.swing.GroupLayout layout = new
javax.swing.GroupLayout(getContentPane());
        getContentPane().setLayout(layout);
        layout.setHorizontalGroup(
layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addComponent(Avatar,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
            .addGap(10, 10, 10)
        )
);
        layout.setVerticalGroup(
layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addGap(10, 10, 10)
            .addComponent(Avatar,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(10, 10, 10)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addComponent(Avatar,
Short.MAX_VALUE))
            .addGap(10, 10, 10)
        )
);
        pack();
}// </editor-fold>//GEN-END:initComponents

    private void
SelectAvatarActionPerformed(java.awt.event.ActionEvent evt)
{//GEN-FIRST:event_SelectAvatarActionPerformed
    String avatarName = AvatarList.getSelectedValue();
    if (avatarName == null || avatarName.isEmpty()){
        Error error = new Error();
        error.SetErrorMsg("Select the TaskFriend");
        error.setVisible(true);
        return;
    }
    String curAvatarName = this.home.getAvatarName();
    if (curAvatarName.equals(avatarName)){
        Error error = new Error();
        error.SetErrorMsg("Select different TaskFriend then
current");
        error.setVisible(true);
        return;
    }
}

```

```

        }

    // Find item from inventory
    Item selectedItem = this.inventory[0];
    boolean found=false;
    for (Item item : this.inventory) {
        if (avatarName.equals(item.getName())) {
            selectedItem = item;
            found = true;
        }
    }
    if (found == false) {
        Error error = new Error();
        error.SetErrorMsg("Could not load inventory");
        error.setVisible(true);
        return;
    }
    int availablePoints = this.home.getPoints();
    if (availablePoints < selectedItem.getCost()) {
        Error error = new Error();
        error.SetErrorMsg("Insufficient points");
        error.setVisible(true);
        return;
    } else {
        this.home.addPoints(-1*selectedItem.getCost());
    }
    String health = home.getHealth();
    String accessory = home.getAccessory();
    String avatarImagePath = "Images/Avatar/" + health + "/" +
accessory + "/" + avatarName + ".png";
    this.home.updateAvatar(avatarImagePath, avatarName);
    this.setVisible(false);
    System.out.println("Selecting avatar: " + avatarImagePath);
    this.dispose();
}//GEN-LAST:event_SelectAvatarActionPerformed

private void
AvatarListValueChanged(javax.swing.event.ListSelectionEvent evt)
{//GEN-FIRST:event_AvatarListValueChanged
    String avatar = AvatarList.getSelectedValue();
    String accessory = home.getAccessory();
    String health = home.getHealth();
    String avatarIconPath = "Images/Avatar/" + health + "/" +
accessory + "/" + avatar + ".png";

```

```

        ImageIcon avatarIcon = new ImageIcon(new
ImageIcon(avatarIconPath).getImage().getScaledInstance(120, 200,
Image.SCALE_DEFAULT));
        AvatarImage.setIcon(avatarIcon);
        AvatarImage.setVisible(true);
        // Find item from inventory
        Item selectedItem = this.inventory[0];
        boolean found=false;
        for (Item item : this.inventory) {
            if (avatar.equals(item.getName())) {
                selectedItem = item;
                found = true;
            }
        }
        if (found == false) {
            Error error = new Error();
            error.SetErrorMsg("Could not load inventory");
            error.setVisible(true);
            return;
        }
        CostValue.setText(String.valueOf(selectedItem.getCost()));
        Cost.setVisible(true);
        CostValue.setVisible(true);
    }//GEN-LAST:event_AvatarListValueChanged

    // Variables declaration - do not modify//GEN-BEGIN:variables
    private javax.swing.JPanel Avatar;
    private javax.swing.JLabel AvatarImage;
    private javax.swing.JList<String> AvatarList;
    private javax.swing.JScrollPane AvatarPanel;
    private javax.swing.JLabel Cost;
    private javax.swing.JLabel CostValue;
    private javax.swing.JButton SelectAvatar;
    // End of variables declaration//GEN-END:variables
}

```

//FILE: TaskFriend/src/tamagui/InventoryFood.form

```

<?xml version="1.0" encoding="UTF-8" ?>

<Form version="1.3" maxVersion="1.9"
type="org.netbeans.modules.form.forminfo.JFrameFormInfo">
<Properties>
    <Property name="defaultCloseOperation" type="int" value="2"/>

```

```

<Property name="title" type="java.lang.String" value="TaskFriend
Feed's"/>
</Properties>
<SyntheticProperties>
    <SyntheticProperty name="formSizePolicy" type="int" value="1"/>
    <SyntheticProperty name="generateCenter" type="boolean"
value="false"/>
</SyntheticProperties>
<AuxValues>
    <AuxValue name="FormSettings_autoResourcing"
type="java.lang.Integer" value="0"/>
    <AuxValue name="FormSettings_autoSetComponentName"
type="java.lang.Boolean" value="false"/>
    <AuxValue name="FormSettings_generateFQN" type="java.lang.Boolean"
value="true"/>
    <AuxValue name="FormSettings_generateMnemonicsCode"
type="java.lang.Boolean" value="false"/>
    <AuxValue name="FormSettings_i18nAutoMode"
type="java.lang.Boolean" value="false"/>
    <AuxValue name="FormSettings_layoutCodeTarget"
type="java.lang.Integer" value="1"/>
    <AuxValue name="FormSettings_listenerGenerationStyle"
type="java.lang.Integer" value="0"/>
    <AuxValue name="FormSettings_variablesLocal"
type="java.lang.Boolean" value="false"/>
    <AuxValue name="FormSettings_variablesModifier"
type="java.lang.Integer" value="2"/>
</AuxValues>

<Layout>
    <DimensionLayout dim="0">
        <Group type="103" groupAlignment="0" attributes="0">
            <Component id="Feed" max="32767" attributes="0"/>
        </Group>
    </DimensionLayout>
    <DimensionLayout dim="1">
        <Group type="103" groupAlignment="0" attributes="0">
            <Group type="102" alignment="0" attributes="0">
                <EmptySpace max="-2" attributes="0"/>
                <Component id="Feed" max="32767" attributes="0"/>
            </Group>
        </Group>
    </DimensionLayout>
</Layout>
<SubComponents>

```

```

<Container class="javax.swing.JPanel" name="Feed">

    <Layout>
        <DimensionLayout dim="0">
            <Group type="103" groupAlignment="0" attributes="0">
                <Group type="102" alignment="0" attributes="0">
                    <EmptySpace min="-2" pref="15" max="-2"
attributes="0"/>
                    <Component id="FeedPanel" min="-2" pref="149"
max="-2" attributes="0"/>
                    <Group type="103" groupAlignment="0" attributes="0">
                        <Group type="102" attributes="0">
                            <EmptySpace min="-2" pref="29" max="-2"
attributes="0"/>
                        <Group type="103" groupAlignment="0"
attributes="0">
                            <Group type="102" attributes="0">
                                <Component id="BoostName" min="-2"
pref="63" max="-2" attributes="0"/>
                                <EmptySpace type="unrelated"
max="-2" attributes="0"/>
                                <Component id="BoostValue" min="-2"
pref="31" max="-2" attributes="0"/>
                            </Group>
                            <Group type="103" alignment="0"
groupAlignment="1" attributes="0">
                                <Group type="102" alignment="0"
attributes="0">
                                    <Component id="Cost" min="-2"
pref="41" max="-2" attributes="0"/>
                                    <EmptySpace min="-2" pref="34"
max="-2" attributes="0"/>
                                    <Component id="CostValue"
min="-2" pref="31" max="-2" attributes="0"/>
                                </Group>
                                <Component id="useItem" min="-2"
pref="109" max="-2" attributes="0"/>
                            </Group>
                        </Group>
                    <Group type="102" alignment="0" attributes="0">
                        <EmptySpace type="separate" max="-2"
attributes="0"/>
                        <Component id="FeedImage" min="-2"
pref="140" max="-2" attributes="0"/>
                    </Group>
                </Group>
            </Group>
        </DimensionLayout>
    </Layout>

```

```

                </Group>
            </Group>
            <EmptySpace pref="7" max="32767" attributes="0"/>
        </Group>
    </Group>
</DimensionLayout>
<DimensionLayout dim="1">
    <Group type="103" groupAlignment="0" attributes="0">
        <Group type="102" alignment="1" attributes="0">
            <Group type="103" groupAlignment="1" attributes="0">
                <Component id="FeedPanel" max="32767"
attributes="0"/>
                <Group type="102" attributes="0">
                    <EmptySpace max="-2" attributes="0"/>
                    <Component id="FeedImage" min="-2"
pref="232" max="-2" attributes="0"/>
                    <EmptySpace type="separate" max="-2"
attributes="0"/>
                <Group type="103" groupAlignment="3"
attributes="0">
                    <Component id="BoostName" alignment="3"
min="-2" pref="21" max="-2" attributes="0"/>
                    <Component id="BoostValue" alignment="3"
min="-2" max="-2" attributes="0"/>
                </Group>
                <EmptySpace max="-2" attributes="0"/>
                <Group type="103" groupAlignment="3"
attributes="0">
                    <Component id="Cost" alignment="3"
min="-2" max="-2" attributes="0"/>
                    <Component id="CostValue" alignment="3"
max="32767" attributes="0"/>
                </Group>
                <EmptySpace max="-2" attributes="0"/>
                <Component id="useItem" min="-2" max="-2"
attributes="0"/>
            </Group>
        </Group>
        <EmptySpace min="-2" pref="15" max="-2"
attributes="0"/>
    </Group>
</DimensionLayout>
</Layout>
<SubComponents>
```

```

<Container class="javax.swing.JScrollPane" name="FeedPanel">
    <AuxValues>
        <AuxValue name="autoScrollPane" type="java.lang.Boolean"
value="true"/>
    </AuxValues>

    <Layout
class="org.netbeans.modules.form.compat2.layouts.support.JScrollPaneSu
pportLayout"/>
    <SubComponents>
        <Component class="javax.swing.JList" name="FeedList">
            <Properties>
                <Property name="model" type="javax.swing.ListModel"
editor="org.netbeans.modules.form.editors2.ListModelEditor">
                    <StringArray count="0"/>
                </Property>
            </Properties>
            <Events>
                <EventHandler event="valueChanged"
listener="javax.swing.event.ListSelectionListener"
parameters="javax.swing.event.ListSelectionEvent"
handler="FeedListValueChanged"/>
            </Events>
            <AuxValues>
                <AuxValue name="JavaCodeGenerator_TypeParameters"
type="java.lang.String" value="&lt;String&gt;"/>
            </AuxValues>
        </Component>
    </SubComponents>
</Container>
<Component class="javax.swing.JButton" name="useItem">
    <Properties>
        <Property name="text" type="java.lang.String" value="Use
Item"/>
        <Property name="toolTipText" type="java.lang.String"
value="Feed your TaskFriend to increase his fullness."/>
    </Properties>
    <Events>
        <EventHandler event="actionPerformed"
listener="java.awt.event.ActionListener"
parameters="java.awt.event.ActionEvent"
handler="useItemActionPerformed"/>
    </Events>
</Component>
<Component class="javax.swing.JLabel" name="FeedImage">

```

```

        </Component>
        <Component class="javax.swing.JLabel" name="Cost">
            <Properties>
                <Property name="text" type="java.lang.String"
value="Cost:"/>
            </Properties>
        </Component>
        <Component class="javax.swing.JLabel" name="CostValue">
            <Properties>
                <Property name="horizontalAlignment" type="int"
value="0"/>
                    <Property name="text" type="java.lang.String" value="00"/>
            </Properties>
        </Component>
        <Component class="javax.swing.JLabel" name="BoostName">
            <Properties>
                <Property name="text" type="java.lang.String"
value="Fullness:"/>
            </Properties>
        </Component>
        <Component class="javax.swing.JLabel" name="BoostValue">
            <Properties>
                <Property name="horizontalAlignment" type="int"
value="0"/>
                    <Property name="text" type="java.lang.String" value="00"/>
            </Properties>
        </Component>
    </SubComponents>
</Container>
</SubComponents>
</Form>

```

//FILE: TaskFriend/src/tamagui/InventoryFood.java

```

/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt
to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JFrame.java
to edit this template
 */
package tamagui;

import java.awt.Image;
import javax.swing.ImageIcon;

```

```

/**
 * Authors/Contributors in alphabetical order.
 * @author Arpita Sakshee
 * @author Christian Villanueva
 * @author Katrina Mai
 * @author Maya Louise Dagdag
 */
public final class InventoryFood extends javax.swing.JFrame {
    private final TamaGuiHome home;
    private final Item[] inventory;
    /**
     * Creates new form InteractionFeed
     * @param home
     */
    public InventoryFood(TamaGuiHome home) {
        initComponents();
        this.home = home;
        Item [] items = {
            new Item("Peppermint",1,2,0),
            new Item("Lollipop",3,5,0),
            new Item("Toffee",5,8,0),
            new Item("Chocolate",7,11,0),
            new Item("Donut",9,15,0),
        };
        this.inventory = items;
        addFeeds(items);
        BoostName.setVisible(false);
        BoostValue.setVisible(false);
        Cost.setVisible(false);
        CostValue.setVisible(false);
    }
    /**
     * This method is called from within the constructor to initialize
     * the form.
     * WARNING: Do NOT modify this code. The content of this method is
     * always
     * regenerated by the Form Editor.
     */
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated
    Code">//GEN-BEGIN:initComponents
    private void initComponents() {

```

```

Feed = new javax.swing.JPanel();
FeedPanel = new javax.swing.JScrollPane();
FeedList = new javax.swing.JList<>();
useItem = new javax.swing.JButton();
FeedImage = new javax.swing.JLabel();
Cost = new javax.swing.JLabel();
CostValue = new javax.swing.JLabel();
BoostName = new javax.swing.JLabel();
BoostValue = new javax.swing.JLabel();

setDefaultCloseOperation(javax.swing.WindowConstants.DISPOSE_ON_CLOSE)
;
setTitle("TaskFriend Feed's");

FeedList.addListSelectionListener(new
javax.swing.event.ListSelectionListener() {
    public void
valueChanged(javax.swing.event.ListSelectionEvent evt) {
        FeedListValueChanged(evt);
    }
});
FeedPanel.setViewportView(FeedList);

useItem.setText("Use Item");
useItem.setToolTipText("Feed your TaskFriend to increase his
fullness.");
useItem.addActionListener(new java.awt.event.ActionListener()
{
    public void actionPerformed(java.awt.event.ActionEvent
evt) {
        useItemActionPerformed(evt);
    }
});
Cost.setText("Cost:");

CostValue.setAlignment(javax.swing.SwingConstants.CENTER);
CostValue.setText("00");

BoostName.setText("Fullness:");

BoostValue.setAlignment(javax.swing.SwingConstants.CENTER);

```

```
        BoostValue.setText("00");

        javax.swing.GroupLayout FeedLayout = new
javax.swing.GroupLayout(Feed);
        Feed.setLayout(FeedLayout);
        FeedLayout.setHorizontalGroup(
FeedLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(FeedLayout.createSequentialGroup()
            .addGap(15, 15, 15)
            .addComponent(FeedPanel,
javax.swing.GroupLayout.PREFERRED_SIZE, 149,
javax.swing.GroupLayout.PREFERRED_SIZE)

        .addGroup(FeedLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(FeedLayout.createSequentialGroup()
                .addGap(29, 29, 29)

        .addGroup(FeedLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(FeedLayout.createSequentialGroup()
                .addComponent(BoostName,
javax.swing.GroupLayout.PREFERRED_SIZE, 63,
javax.swing.GroupLayout.PREFERRED_SIZE)

        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
            .addComponent(BoostValue,
javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE))

        .addGroup(FeedLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
            .addGroup(jax.swing.GroupLayout.Alignment.LEADING,
FeedLayout.createSequentialGroup()
                .addComponent(Cost,
javax.swing.GroupLayout.PREFERRED_SIZE, 41,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addGap(34, 34, 34)
                .addComponent(CostValue,
javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE))
```

```

                .addComponent(useItem,
javax.swing.GroupLayout.PREFERRED_SIZE, 109,
javax.swing.GroupLayout.PREFERRED_SIZE)))
                .addGroup(FeedLayout.createSequentialGroup()
                    .addGap(18, 18, 18)
                    .addComponent(FeedImage,
javax.swing.GroupLayout.PREFERRED_SIZE, 140,
javax.swing.GroupLayout.PREFERRED_SIZE))
                    .addContainerGap(7, Short.MAX_VALUE))
            );
        FeedLayout.setVerticalGroup(
FeedLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
FeedLayout.createSequentialGroup()

            .addGroup(FeedLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
                .addComponent(FeedPanel)
                .addGroup(FeedLayout.createSequentialGroup()
                    .addContainerGap()
                    .addComponent(FeedImage,
javax.swing.GroupLayout.PREFERRED_SIZE, 232,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addGap(18, 18, 18)

                .addGroup(FeedLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(BoostName,
javax.swing.GroupLayout.PREFERRED_SIZE, 21,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(BoostValue))

                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

                .addGroup(FeedLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(Cost)
                    .addComponent(CostValue,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))

                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                    .addComponent(useItem)))

```

```

        .addGap(15, 15, 15))
    );

    javax.swing.GroupLayout layout = new
    javax.swing.GroupLayout(getContentPane());
    getContentPane().setLayout(layout);
    layout.setHorizontalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(Feed, javax.swing.GroupLayout.DEFAULT_SIZE,
    javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
    );
    layout.setVerticalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addContainerGap()
            .addComponent(Feed,
    javax.swing.GroupLayout.DEFAULT_SIZE,
    javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
    );

    pack();
}// </editor-fold>//GEN-END:initComponents

private void useItemActionPerformed(java.awt.event.ActionEvent
evt) {//GEN-FIRST:event_useItemActionPerformed
    String feed = FeedList.getSelectedValue();
    if (feed == null || feed.isEmpty()){
        Error error = new Error();
        error.setErrorMsg("Select the feed");
        error.setVisible(true);
        return;
    }
    int availablePoints = this.home.getPoints();
    // Find item from inventory
    Item selectedItem = this.inventory[0];
    boolean found=false;
    for (Item item : this.inventory) {
        if (feed.equals(item.getName())){
            selectedItem = item;
            found = true;
        }
    }
    if (found == false) {

```

```

        Error error = new Error();
        error.SetErrorMsg("Could not load inventory");
        error.setVisible(true);
        return;
    }
    if (availablePoints < selectedItem.getCost()) {
        Error error = new Error();
        error.SetErrorMsg("Insufficient points");
        error.setVisible(true);
        return;
    } else {
        this.home.addPoints(-1*selectedItem.getCost());
    }
    this.home.updateFullness(selectedItem.getBoost_1());
    this.setVisible(false);
    this.dispose();
}//GEN-LAST:event_useItemActionPerformed

private void
FeedListValueChanged(javax.swing.event.ListSelectionEvent evt)
{//GEN-FIRST:event_FeedListValueChanged
    String food = FeedList.getSelectedValue();
    String foodIconPath = "Images/Food/" + food + ".png";
    ImageIcon foodIcon = new ImageIcon(new
ImageIcon(foodIconPath).getImage().getScaledInstance(120, 200,
Image.SCALE_DEFAULT));
    FeedImage.setIcon(foodIcon);
    FeedImage.setVisible(true);
    // Find item from inventory
    Item selectedItem = this.inventory[0];
    boolean found=false;
    for (Item item : this.inventory) {
        if (food.equals(item.getName())) {
            selectedItem = item;
            found = true;
        }
    }
    if (found == false) {
        Error error = new Error();
        error.SetErrorMsg("Could not load inventory");
        error.setVisible(true);
        return;
    }
    CostValue.setText(String.valueOf(selectedItem.getCost()));
}

```

```

BoostValue.setText("."+String.valueOf(selectedItem.getBoost_1()));
    BoostName.setVisible(true);
    BoostValue.setVisible(true);
    Cost.setVisible(true);
    CostValue.setVisible(true);
}//GEN-LAST:event_FeedListValueChanged

public void addFeeds(Item[] items){
    FeedList.setModel(new javax.swing.AbstractListModel<String>() {
        @Override
        public int getSize() { return items.length; }
        @Override
        public String getElementAt(int i) { return
items[i].getName(); }
    });
}

// Variables declaration - do not modify//GEN-BEGIN:variables
private javax.swing.JLabel BoostName;
private javax.swing.JLabel BoostValue;
private javax.swing.JLabel Cost;
private javax.swing.JLabel CostValue;
private javax.swing.JPanel Feed;
private javax.swing.JLabel FeedImage;
private javax.swing.JList<String> FeedList;
private javax.swing.JScrollPane FeedPanel;
private javax.swing.JButton useItem;
// End of variables declaration//GEN-END:variables
}

```

//FILE: TaskFriend/src/tamagui/InventoryHeal.form

```

<?xml version="1.0" encoding="UTF-8" ?>

<Form version="1.3" maxVersion="1.9"
type="org.netbeans.modules.form.forminfo.JFrameFormInfo">
    <Properties>
        <Property name="defaultCloseOperation" type="int" value="2"/>
        <Property name="title" type="java.lang.String" value="TaskFriend
Heal's"/>
    </Properties>
    <SyntheticProperties>
        <SyntheticProperty name="formSizePolicy" type="int" value="1"/>

```

```

        <SyntheticProperty name="generateCenter" type="boolean"
value="false"/>
    </SyntheticProperties>
    <AuxValues>
        <AuxValue name="FormSettings_autoResourcing"
type="java.lang.Integer" value="0"/>
        <AuxValue name="FormSettings_autoSetComponentName"
type="java.lang.Boolean" value="false"/>
        <AuxValue name="FormSettings_generateFQN" type="java.lang.Boolean"
value="true"/>
        <AuxValue name="FormSettings_generateMnemonicsCode"
type="java.lang.Boolean" value="false"/>
        <AuxValue name="FormSettings_i18nAutoMode"
type="java.lang.Boolean" value="false"/>
        <AuxValue name="FormSettings_layoutCodeTarget"
type="java.lang.Integer" value="1"/>
        <AuxValue name="FormSettings_listenerGenerationStyle"
type="java.lang.Integer" value="0"/>
        <AuxValue name="FormSettings_variablesLocal"
type="java.lang.Boolean" value="false"/>
        <AuxValue name="FormSettings_variablesModifier"
type="java.lang.Integer" value="2"/>
    </AuxValues>

    <Layout>
        <DimensionLayout dim="0">
            <Group type="103" groupAlignment="0" attributes="0">
                <Component id="Heal" alignment="0" max="32767"
attributes="0"/>
            </Group>
        </DimensionLayout>
        <DimensionLayout dim="1">
            <Group type="103" groupAlignment="0" attributes="0">
                <Group type="102" alignment="0" attributes="0">
                    <EmptySpace max="-2" attributes="0"/>
                    <Component id="Heal" max="32767" attributes="0"/>
                </Group>
            </Group>
        </DimensionLayout>
    </Layout>
    <SubComponents>
        <Container class="javax.swing.JPanel" name="Heal">
            <Layout>
                <DimensionLayout dim="0">

```

```

<Group type="103" groupAlignment="0" attributes="0">
    <Group type="102" alignment="0" attributes="0">
        <EmptySpace min="-2" pref="15" max="-2"
attributes="0"/>
        <Component id="HealPanel" min="-2" pref="149"
max="-2" attributes="0"/>
        <EmptySpace type="separate" max="-2"
attributes="0"/>
        <Group type="103" groupAlignment="0" attributes="0">
            <Group type="102" alignment="0" attributes="0">
                <Component id="BoostName" min="-2" pref="74"
max="-2" attributes="0"/>
                <EmptySpace type="unrelated" max="-2"
attributes="0"/>
                <Component id="BoostValue" min="-2"
pref="31" max="-2" attributes="0"/>
            </Group>
            <Component id="HealImage" alignment="0" min="-2"
pref="140" max="-2" attributes="0"/>
            <Group type="103" alignment="0"
groupAlignment="1" attributes="0">
                <Component id="useItem" alignment="1"
min="-2" pref="117" max="-2" attributes="0"/>
                <Group type="102" alignment="1"
attributes="0">
                    <Component id="Cost" min="-2" pref="41"
max="-2" attributes="0"/>
                    <EmptySpace min="-2" pref="45" max="-2"
attributes="0"/>
                    <Component id="CostValue" min="-2"
pref="31" max="-2" attributes="0"/>
                </Group>
            </Group>
            <EmptySpace max="32767" attributes="0"/>
        </Group>
    </Group>
</DimensionLayout>
<DimensionLayout dim="1">
    <Group type="103" groupAlignment="0" attributes="0">
        <Group type="102" alignment="1" attributes="0">
            <Group type="103" groupAlignment="1" attributes="0">
                <Component id="HealPanel" alignment="1"
max="32767" attributes="0"/>
                <Group type="102" alignment="1" attributes="0">

```

```

                <EmptySpace max="-2" attributes="0"/>
                <Component id="HealImage" min="-2"
pref="232" max="-2" attributes="0"/>
                    <EmptySpace type="separate" max="-2"
attributes="0"/>
                    <Group type="103" groupAlignment="3"
attributes="0">
                        <Component id="BoostName" alignment="3"
min="-2" pref="21" max="-2" attributes="0"/>
                            <Component id="BoostValue" alignment="3"
min="-2" max="-2" attributes="0"/>
                        </Group>
                        <EmptySpace max="-2" attributes="0"/>
                        <Group type="103" groupAlignment="3"
attributes="0">
                            <Component id="Cost" alignment="3"
min="-2" max="-2" attributes="0"/>
                                <Component id="CostValue" alignment="3"
max="32767" attributes="0"/>
                            </Group>
                            <EmptySpace max="-2" attributes="0"/>
                            <Component id="useItem" min="-2" max="-2"
attributes="0"/>
                        </Group>
                    </Group>
                    <EmptySpace min="-2" pref="15" max="-2"
attributes="0"/>
                </Group>
            </DimensionLayout>
        </Layout>
        <SubComponents>
            <Container class="javax.swing.JScrollPane" name="HealPanel">
                <AuxValues>
                    <AuxValue name="autoScrollPane" type="java.lang.Boolean"
value="true"/>
                </AuxValues>

                <Layout
class="org.netbeans.modules.form.compat2.layouts.support.JScrollPaneSu
pportLayout"/>
                <SubComponents>
                    <Component class="javax.swing.JList" name="HealList">
                        <Properties>

```

```

        <Property name="model" type="javax.swing.ListModel"
editor="org.netbeans.modules.form.editors2.ListModelEditor">
            <StringArray count="0"/>
        </Property>
    </Properties>
    <Events>
        <EventHandler event="valueChanged"
listener="javax.swing.event.ListSelectionListener"
parameters="javax.swing.event.ListSelectionEvent"
handler="HealListValueChanged"/>
    </Events>
    <AuxValues>
        <AuxValue name="JavaCodeGenerator_TypeParameters"
type="java.lang.String" value="&lt;String&gt;"/>
    </AuxValues>
</Component>
</SubComponents>
</Container>
<Component class="javax.swing.JButton" name="useItem">
    <Properties>
        <Property name="text" type="java.lang.String" value="Use
Item"/>
        <Property name="toolTipText" type="java.lang.String"
value="Heal your TaskFriend to increase his wellness."/>
    <Properties>
        <Events>
            <EventHandler event="actionPerformed"
listener="java.awt.event.ActionListener"
parameters="java.awt.event.ActionEvent"
handler="useItemActionPerformed"/>
        </Events>
    </Component>
    <Component class="javax.swing.JLabel" name="HealImage">
    </Component>
    <Component class="javax.swing.JLabel" name="Cost">
        <Properties>
            <Property name="text" type="java.lang.String"
value="Cost:"/>
        <Properties>
    </Component>
    <Component class="javax.swing.JLabel" name="CostValue">
        <Properties>
            <Property name="horizontalAlignment" type="int"
value="0"/>
            <Property name="text" type="java.lang.String" value="00"/>
        <Properties>
    </Component>

```

```

        </Properties>
    </Component>
    <Component class="javax.swing.JLabel" name="BoostName">
        <Properties>
            <Property name="text" type="java.lang.String"
value="Wellness:"/>
        </Properties>
    </Component>
    <Component class="javax.swing.JLabel" name="BoostValue">
        <Properties>
            <Property name="horizontalAlignment" type="int"
value="0"/>
            <Property name="text" type="java.lang.String" value="00"/>
        </Properties>
    </Component>
</SubComponents>
</Container>
</SubComponents>
</Form>

```

//FILE: TaskFriend/src/tamagui/InventoryHeal.java

```

/*
 * Click
nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt
to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JFrame.java
to edit this template
 */
package tamagui;

import java.awt.Image;
import javax.swing.ImageIcon;

/**
 * Authors/Contributors in alphabetical order.
 * @author Arpita Sakshee
 * @author Christian Villanueva
 * @author Katrina Mai
 * @author Maya Louise Dagdag
 */
public final class InventoryHeal extends javax.swing.JFrame {
    private final TamaGuiHome home;
    private final Item[] inventory;

```

```

/**
 * Creates new form MedicineInventory
 * @param home
 */
public InventoryHeal(TamaGuiHome home) {
    initComponents();
    this.home = home;
    Item [] items = {
        new Item("Mint",15,15,0),
        new Item("Lavender",25,25,0),
        new Item("Chamomile",35,35,0),
        new Item("Turmeric",45,45,0),
        new Item("Ginseng",50,60,0),
    };
    addHeal(items);
    this.inventory = items;
    BoostName.setVisible(false);
    BoostValue.setVisible(false);
    Cost.setVisible(false);
    CostValue.setVisible(false);
}

public void addHeal(Item[] items){

    HealList.setModel(new javax.swing.AbstractListModel<String>() {
        @Override
        public int getSize() { return items.length; }
        @Override
        public String getElementAt(int i) { return
    items[i].getName(); }
    });
}
/** 
 * This method is called from within the constructor to initialize
the form.
 * WARNING: Do NOT modify this code. The content of this method is
always
 * regenerated by the Form Editor.
 */
@SuppressWarnings("unchecked")
// <editor-fold defaultstate="collapsed" desc="Generated
Code">//GEN-BEGIN:initComponents
private void initComponents() {

    Heal = new javax.swing.JPanel();

```

```

HealPanel = new javax.swing.JScrollPane();
HealList = new javax.swing.JList<>();
useItem = new javax.swing.JButton();
HealImage = new javax.swing.JLabel();
Cost = new javax.swing.JLabel();
CostValue = new javax.swing.JLabel();
BoostName = new javax.swing.JLabel();
BoostValue = new javax.swing.JLabel();

setDefaultCloseOperation(javax.swing.WindowConstants.DISPOSE_ON_CLOSE)
;
setTitle("TaskFriend Heal's");

    HealList.addListSelectionListener(new
javax.swing.event.ListSelectionListener() {
        public void
valueChanged(javax.swing.event.ListSelectionEvent evt) {
            HealListValueChanged(evt);
        }
    });
    HealPanel.setViewportView(HealList);

    useItem.setText("Use Item");
    useItem.setToolTipText("Heal your TaskFriend to increase his
wellness.");
    useItem.addActionListener(new java.awt.event.ActionListener()
{
        public void actionPerformed(java.awt.event.ActionEvent
evt) {
            useItemActionPerformed(evt);
        }
    });
    Cost.setText("Cost:");

CostValue.setHorizontalAlignment(javax.swing.SwingConstants.CENTER);
CostValue.setText("00");

BoostName.setText("Wellness:");

BoostValue.setHorizontalAlignment(javax.swing.SwingConstants.CENTER);
BoostValue.setText("00");

```

```
    javax.swing.GroupLayout HealLayout = new
javax.swing.GroupLayout(Heal);
    Heal.setLayout(HealLayout);
    HealLayout.setHorizontalGroup(
HealLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(HealLayout.createSequentialGroup()
            .addGroupGap(15, 15, 15)
            .addComponent(HealPanel,
javax.swing.GroupLayout.PREFERRED_SIZE, 149,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGroupGap(18, 18, 18)

        .addGroup(HealLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(HealLayout.createSequentialGroup()
                .addComponent(BoostName,
javax.swing.GroupLayout.PREFERRED_SIZE, 74,
javax.swing.GroupLayout.PREFERRED_SIZE)

            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                .addComponent(BoostValue,
javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addComponent(HealImage,
javax.swing.GroupLayout.PREFERRED_SIZE, 140,
javax.swing.GroupLayout.PREFERRED_SIZE)

        .addGroup(HealLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
            .addComponent(useItem,
javax.swing.GroupLayout.PREFERRED_SIZE, 117,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGroup(HealLayout.createSequentialGroup()
                .addComponent(Cost,
javax.swing.GroupLayout.PREFERRED_SIZE, 41,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addGroupGap(45, 45, 45)
                .addComponent(CostValue,
javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE)))
            .addGroupContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE))
```

```
);

HealLayout.setVerticalGroup(
    HealLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
    HealLayout.createSequentialGroup()

    .addGroup(HealLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
        .addComponent(HealPanel)
        .addGroup(HealLayout.createSequentialGroup()
            .addContainerGap()
            .addComponent(HealImage,
    javax.swing.GroupLayout.PREFERRED_SIZE, 232,
    javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGroup(HealLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(BoostName,
    javax.swing.GroupLayout.PREFERRED_SIZE, 21,
    javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(BoostValue))

    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

    .addGroup(HealLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
        .addComponent(Cost)
        .addComponent(CostValue,
    javax.swing.GroupLayout.DEFAULT_SIZE,
    javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))

    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addComponent(useItem)))
    .addGroup(HealLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
        .addComponent(relatedLabel))
    .addGap(15, 15, 15))
);

javax.swing.GroupLayout layout = new
javax.swing.GroupLayout(getContentPane());
getContentPane().setLayout(layout);
layout.setHorizontalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
```

```

        .addComponent(Heal, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
    );
    layout.setVerticalGroup(
layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(layout.createSequentialGroup()
        .addContainerGap()
        .addComponent(Heal,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
    );

    pack();
}// </editor-fold>//GEN-END:initComponents

private void
HealListValueChanged(javax.swing.event.ListSelectionEvent evt)
{//GEN-FIRST:event_HealListValueChanged
    String heal = HealList.getSelectedValue();
    String healIconPath = "Images/Heal/" + heal + ".png";
    ImageIcon healIcon = new ImageIcon(new
ImageIcon(healIconPath).getImage().getScaledInstance(120, 200,
Image.SCALE_DEFAULT));
    HealImage.setIcon(healIcon);
    HealImage.setVisible(true);
    // Find item from inventory
    Item selectedItem = this.inventory[0];
    boolean found=false;
    for (Item item : this.inventory) {
        if (heal.equals(item.getName())) {
            selectedItem = item;
            found = true;
        }
    }
    if (found == false) {
        Error error = new Error();
        error.SetErrorMsg("Could not load inventory");
        error.setVisible(true);
        return;
    }
    CostValue.setText(String.valueOf(selectedItem.getCost()));

    BoostValue.setText(""+String.valueOf(selectedItem.getBoost_1()));
    BoostName.setVisible(true);
}

```

```

        BoostValue.setVisible(true);
        Cost.setVisible(true);
        CostValue.setVisible(true);
    } //GEN-LAST:event_HealListValueChanged

    private void useItemActionPerformed(java.awt.event.ActionEvent evt) { //GEN-FIRST:event_useItemActionPerformed
        String heal = HealList.getSelectedValue();
        if (heal == null || heal.isEmpty()){
            Error error = new Error();
            error.SetErrorMsg("Select the heal");
            error.setVisible(true);
            return;
        }
        int availablePoints = this.home.getPoints();
        // Find item from inventory
        Item selectedItem = this.inventory[0];
        boolean found=false;
        for (Item item : this.inventory) {
            if (heal.equals(item.getName())){
                selectedItem = item;
                found = true;
            }
        }
        if (found == false) {
            Error error = new Error();
            error.SetErrorMsg("Could not load inventory");
            error.setVisible(true);
            return;
        }
        if (availablePoints < selectedItem.getCost()) {
            Error error = new Error();
            error.SetErrorMsg("Insufficient points");
            error.setVisible(true);
            return;
        } else {
            this.home.addPoints(-1*selectedItem.getCost());
        }
        this.home.updateWellness(selectedItem.getBoost_1());
        this.setVisible(false);
        this.dispose();
    } //GEN-LAST:event_useItemActionPerformed

    // Variables declaration - do not modify//GEN-BEGIN:variables

```

```

    private javax.swing.JLabel BoostName;
    private javax.swing.JLabel BoostValue;
    private javax.swing.JLabel Cost;
    private javax.swing.JLabel CostValue;
    private javax.swing.JPanel Heal;
    private javax.swing.JLabel HealImage;
    private javax.swing.JList<String> HealList;
    private javax.swing.JScrollPane HealPanel;
    private javax.swing.JButton useItem;
    // End of variables declaration//GEN-END:variables
}

```

//FILE: TaskFriend/src/tamagui/InventoryToy.form

```

<?xml version="1.0" encoding="UTF-8" ?>

<Form version="1.3" maxVersion="1.9"
type="org.netbeans.modules.form.forminfo.JFrameFormInfo">
  <Properties>
    <Property name="defaultCloseOperation" type="int" value="2"/>
    <Property name="title" type="java.lang.String" value="TaskFriend
Toy's"/>
  </Properties>
  <SyntheticProperties>
    <SyntheticProperty name="formSizePolicy" type="int" value="1"/>
    <SyntheticProperty name="generateCenter" type="boolean"
value="false"/>
  </SyntheticProperties>
  <AuxValues>
    <AuxValue name="FormSettings_autoResourcing"
type="java.lang.Integer" value="0"/>
    <AuxValue name="FormSettings_autoSetComponentName"
type="java.lang.Boolean" value="false"/>
    <AuxValue name="FormSettings_generateFQN" type="java.lang.Boolean"
value="true"/>
    <AuxValue name="FormSettings_generateMnemonicsCode"
type="java.lang.Boolean" value="false"/>
    <AuxValue name="FormSettings_i18nAutoMode"
type="java.lang.Boolean" value="false"/>
    <AuxValue name="FormSettings_layoutCodeTarget"
type="java.lang.Integer" value="1"/>
    <AuxValue name="FormSettings_listenerGenerationStyle"
type="java.lang.Integer" value="0"/>
    <AuxValue name="FormSettings_variablesLocal"
type="java.lang.Boolean" value="false"/>
  </AuxValues>

```

```

<AuxValue name="FormSettings_variablesModifier"
type="java.lang.Integer" value="2"/>
</AuxValues>

<Layout>
<DimensionLayout dim="0">
    <Group type="103" groupAlignment="0" attributes="0">
        <Component id="Toy" alignment="0" max="32767"
attributes="0"/>
    </Group>
</DimensionLayout>
<DimensionLayout dim="1">
    <Group type="103" groupAlignment="0" attributes="0">
        <Group type="102" alignment="0" attributes="0">
            <EmptySpace max="-2" attributes="0"/>
            <Component id="Toy" max="32767" attributes="0"/>
        </Group>
    </Group>
</DimensionLayout>
</Layout>
<SubComponents>
<Container class="javax.swing.JPanel" name="Toy">

    <Layout>
    <DimensionLayout dim="0">
        <Group type="103" groupAlignment="0" attributes="0">
            <Group type="102" alignment="0" attributes="0">
                <EmptySpace min="-2" pref="15" max="-2"
attributes="0"/>
                <Component id="ToyPanel" min="-2" pref="149"
max="-2" attributes="0"/>
                <EmptySpace type="separate" max="-2"
attributes="0"/>
            <Group type="103" groupAlignment="0" attributes="0">
                <Group type="102" attributes="0">
                    <Component id="BoostName" min="-2" pref="74"
max="-2" attributes="0"/>
                    <EmptySpace type="unrelated" max="-2"
attributes="0"/>
                <Component id="BoostValue" min="-2"
pref="31" max="-2" attributes="0"/>
            </Group>
            <Component id="ToyImage" min="-2" pref="140"
max="-2" attributes="0"/>
        </Group>
    </DimensionLayout>
</Layout>
</Container>

```

```

        <Group type="103" alignment="0"
groupAlignment="1" attributes="0">
            <Component id="useItem" min="-2" pref="117"
max="-2" attributes="0"/>
            <Group type="102" attributes="0">
                <Component id="Cost" min="-2" pref="41"
max="-2" attributes="0"/>
                <EmptySpace min="-2" pref="45" max="-2"
attributes="0"/>
                <Component id="CostValue" min="-2"
pref="31" max="-2" attributes="0"/>
            </Group>
        </Group>
    </Group>
    <EmptySpace max="32767" attributes="0"/>
</Group>
</Group>
</DimensionLayout>
<DimensionLayout dim="1">
    <Group type="103" groupAlignment="0" attributes="0">
        <Group type="102" alignment="1" attributes="0">
            <Group type="103" groupAlignment="1" attributes="0">
                <Component id="ToyPanel" alignment="1"
max="32767" attributes="0"/>
                <Group type="102" alignment="1" attributes="0">
                    <EmptySpace max="-2" attributes="0"/>
                    <Component id="ToyImage" min="-2" pref="232"
max="-2" attributes="0"/>
                <EmptySpace type="separate" max="-2"
attributes="0"/>
                <Group type="103" groupAlignment="3"
attributes="0">
                    <Component id="BoostName" alignment="3"
min="-2" pref="21" max="-2" attributes="0"/>
                    <Component id="BoostValue" alignment="3"
min="-2" max="-2" attributes="0"/>
                </Group>
                <EmptySpace max="-2" attributes="0"/>
                <Group type="103" groupAlignment="3"
attributes="0">
                    <Component id="Cost" alignment="3"
min="-2" max="-2" attributes="0"/>
                    <Component id="CostValue" alignment="3"
max="32767" attributes="0"/>
                </Group>

```

```

                <EmptySpace max="-2" attributes="0"/>
                <Component id="useItem" min="-2" max="-2"
attributes="0"/>
            </Group>
        </Group>
        <EmptySpace min="-2" pref="15" max="-2"
attributes="0"/>
    </Group>
    </Group>
</DimensionLayout>
</Layout>
<SubComponents>
    <Container class="javax.swing.JScrollPane" name="ToyPanel">
        <AuxValues>
            <AuxValue name="autoScrollPane" type="java.lang.Boolean"
value="true"/>
        </AuxValues>

        <Layout
class="org.netbeans.modules.form.compat2.layouts.support.JScrollPaneSu
pportLayout"/>
        <SubComponents>
            <Component class="javax.swing.JList" name="ToyList">
                <Properties>
                    <Property name="model" type="javax.swing.ListModel"
editor="org.netbeans.modules.form.editors2.ListModelEditor">
                        <StringArray count="0"/>
                    </Property>
                </Properties>
                <Events>
                    <EventHandler event="valueChanged"
listener="javax.swing.event.ListSelectionListener"
parameters="javax.swing.event.ListSelectionEvent"
handler="ToyListValueChanged"/>
                </Events>
                <AuxValues>
                    <AuxValue name="JavaCodeGenerator_TypeParameters"
type="java.lang.String" value="&lt;String&gt;"/>
                </AuxValues>
            </Component>
        </SubComponents>
    </Container>
    <Component class="javax.swing.JButton" name="useItem">
        <Properties>

```

```

        <Property name="text" type="java.lang.String" value="Use
item"/>
        <Property name="toolTipText" type="java.lang.String"
value="Play with toy to increase TaskFriend happiness."/>
    </Properties>
    <Events>
        <EventHandler event="actionPerformed"
listener="java.awt.event.ActionListener"
parameters="java.awt.event.ActionEvent"
handler="useItemActionPerformed"/>
    </Events>
</Component>
<Component class="javax.swing.JLabel" name="ToyImage">
</Component>
<Component class="javax.swing.JLabel" name="Cost">
    <Properties>
        <Property name="text" type="java.lang.String"
value="Cost:"/>
    </Properties>
</Component>
<Component class="javax.swing.JLabel" name="CostValue">
    <Properties>
        <Property name="horizontalAlignment" type="int"
value="0"/>
        <Property name="text" type="java.lang.String" value="00"/>
    </Properties>
</Component>
<Component class="javax.swing.JLabel" name="BoostName">
    <Properties>
        <Property name="text" type="java.lang.String"
value="Happiness:"/>
    </Properties>
</Component>
<Component class="javax.swing.JLabel" name="BoostValue">
    <Properties>
        <Property name="horizontalAlignment" type="int"
value="0"/>
        <Property name="text" type="java.lang.String" value="00"/>
    </Properties>
</Component>
</SubComponents>
</Container>
</SubComponents>
</Form>

```

//FILE: TaskFriend/src/tamogui/InventoryToy.java

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt
 * to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JFrame.java
 * to edit this template
 */
package tamogui;

import java.awt.Image;
import javax.swing.ImageIcon;

/**
 * Authors/Contributors in alphabetical order.
 * @author Arpita Sakshee
 * @author Christian Villanueva
 * @author Katrina Mai
 * @author Maya Louise Dagdag
 */
public final class InventoryToy extends javax.swing.JFrame {
    private final TamaGuiHome home;
    private final Item[] inventory;

    /**
     * Creates new form ToyInventory
     * @param home
     */
    public InventoryToy(TamaGuiHome home) {
        initComponents();
        this.home = home;
        Item [] items = {
            new Item("Bone",1,2,0),
            new Item("Ball",3,5,0),
            new Item("Mouse",5,8,0),
            new Item("Fish",7,11,0),
            new Item("Squeaky",9,15,0),
        };
        addToys(items);
        this.inventory = items;
        BoostName.setVisible(false);
        BoostValue.setVisible(false);
        Cost.setVisible(false);
        CostValue.setVisible(false);
    }
}
```

```

}

public void addToys(Item[] items){
    ToyList.setModel(new javax.swing.AbstractListModel<String>() {
        @Override
        public int getSize() { return items.length; }
        @Override
        public String getElementAt(int i) { return
    items[i].getName(); }
    });
}

/**
 * This method is called from within the constructor to initialize
the form.
 * WARNING: Do NOT modify this code. The content of this method is
always
 * regenerated by the Form Editor.
 */
@SuppressWarnings("unchecked")
// <editor-fold defaultstate="collapsed" desc="Generated
Code">//GEN-BEGIN:initComponents
private void initComponents() {

    Toy = new javax.swing.JPanel();
    ToyPanel = new javax.swing.JScrollPane();
    ToyList = new javax.swing.JList<>();
    useItem = new javax.swing.JButton();
    ToyImage = new javax.swing.JLabel();
    Cost = new javax.swing.JLabel();
    CostValue = new javax.swing.JLabel();
    BoostName = new javax.swing.JLabel();
    BoostValue = new javax.swing.JLabel();

    setDefaultCloseOperation(javax.swing.WindowConstants.DISPOSE_ON_CLOSE);
;
    setTitle("TaskFriend Toy's");

    ToyList.addListSelectionListener(new
    javax.swing.event.ListSelectionListener() {
        public void
valueChanged(javax.swing.event.ListSelectionEvent evt) {
            ToyListValueChanged(evt);
        }
    }
}

```

```

    });
    ToyPanel.setViewportView(ToyList);

    useItem.setText("Use item");
    useItem.setToolTipText("Play with toy to increase TaskFriend
happiness.");
    useItem.addActionListener(new java.awt.event.ActionListener()
{
    public void actionPerformed(java.awt.event.ActionEvent
evt) {
        useItemActionPerformed(evt);
    }
});

Cost.setText("Cost:");

CostValue.setHorizontalAlignment(javax.swing.SwingConstants.CENTER);
CostValue.setText("00");

BoostName.setText("Happiness:");

BoostValue.setHorizontalAlignment(javax.swing.SwingConstants.CENTER);
BoostValue.setText("00");

javax.swing.GroupLayout ToyLayout = new
javax.swing.GroupLayout(Toy);
Toy.setLayout(ToyLayout);
ToyLayout.setHorizontalGroup(
    ToyLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(ToyLayout.createSequentialGroup()
            .addGap(15, 15, 15)
            .addComponent(ToyPanel,
                javax.swing.GroupLayout.PREFERRED_SIZE, 149,
                javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(18, 18, 18)
        )
        .addGroup(ToyLayout.createSequentialGroup()
            .addGap(18, 18, 18)
            .addGroup(ToyLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(ToyLayout.createSequentialGroup()
                    .addGap(18, 18, 18)
                    .addComponent(SequentialGroup,
                        javax.swing.GroupLayout.PREFERRED_SIZE, 149,
                        javax.swing.GroupLayout.PREFERRED_SIZE)
                )
            )
        )
    )
);

```

```

        .addComponent(BoostName,
javax.swing.GroupLayout.PREFERRED_SIZE, 74,
javax.swing.GroupLayout.PREFERRED_SIZE)

.addComponent(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
        .addComponent(BoostValue,
javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addComponent(ToyImage,
javax.swing.GroupLayout.PREFERRED_SIZE, 140,
javax.swing.GroupLayout.PREFERRED_SIZE)

.addGroup(ToyLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
        .addComponent(useItem,
javax.swing.GroupLayout.PREFERRED_SIZE, 117,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGroup(ToyLayout.createSequentialGroup()
        .addComponent(Cost,
javax.swing.GroupLayout.PREFERRED_SIZE, 41,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(45, 45, 45)
        .addComponent(CostValue,
javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE)))
        .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE))
);
ToyLayout.setVerticalGroup(
ToyLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
ToyLayout.createSequentialGroup()

.addGroup(ToyLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
        .addComponent(ToyPanel)
        .addGroup(ToyLayout.createSequentialGroup()
        .addContainerGap()
        .addComponent(ToyImage,
javax.swing.GroupLayout.PREFERRED_SIZE, 232,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(18, 18, 18)

```

```
.addGroup(ToyLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE.BASELINE)
                .addComponent(BoostName,
                javax.swing.GroupLayout.PREFERRED_SIZE, 21,
                javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(BoostValue))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addGroup(ToyLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE.BASELINE)
                .addComponent(Cost)
                .addComponent(CostValue,
                javax.swing.GroupLayout.DEFAULT_SIZE,
                javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                .addComponent(useItem)))
                .addGap(15, 15, 15))
);

javax.swing.GroupLayout layout = new
javax.swing.GroupLayout(getContentPane());
getContentPane().setLayout(layout);
layout.setHorizontalGroup(
layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addComponent(Toy, javax.swing.GroupLayout.DEFAULT_SIZE,
                javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
);
layout.setVerticalGroup(
layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(layout.createSequentialGroup()
                    .addContainerGap()
                    .addComponent(Toy,
                javax.swing.GroupLayout.DEFAULT_SIZE,
                javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
);

pack();
}// </editor-fold>//GEN-END:initComponents
```

```

    private void
ToyListValueChanged(javax.swing.event.ListSelectionEvent evt)
{ //GEN-FIRST:event_ToyListValueChanged
    String toy = ToyList.getSelectedValue();
    String toyIconPath = "Images/Toy/" + toy + ".png";
    ImageIcon foodIcon = new ImageIcon(new
ImageIcon(toyIconPath).getImage().getScaledInstance(120, 200,
Image.SCALE_DEFAULT));
    ToyImage.setIcon(foodIcon);
    ToyImage.setVisible(true);
    // Find item from inventory
    Item selectedItem = this.inventory[0];
    boolean found=false;
    for (Item item : this.inventory) {
        if (toy.equals(item.getName())) {
            selectedItem = item;
            found = true;
        }
    }
    if (found == false) {
        Error error = new Error();
        error.SetErrorMsg("Could not load inventory");
        error.setVisible(true);
        return;
    }
    CostValue.setText(String.valueOf(selectedItem.getCost()));

    BoostValue.setText(""+String.valueOf(selectedItem.getBoost_1()));
    BoostName.setVisible(true);
    BoostValue.setVisible(true);
    Cost.setVisible(true);
    CostValue.setVisible(true);
} //GEN-LAST:event_ToyListValueChanged

    private void useItemActionPerformed(java.awt.event.ActionEvent
evt) { //GEN-FIRST:event_useItemActionPerformed
    String toy = ToyList.getSelectedValue();
    if (toy == null || toy.isEmpty()){
        Error error = new Error();
        error.SetErrorMsg("Select the toy");
        error.setVisible(true);
        return;
    }
    int availablePoints = this.home.getPoints();
    // Find item from inventory

```

```

Item selectedItem = this.inventory[0];
boolean found=false;
for (Item item : this.inventory) {
    if (toy.equals(item.getName())) {
        selectedItem = item;
        found = true;
    }
}
if (found == false) {
    Error error = new Error();
    error.SetErrorMsg("Could not load inventory");
    error.setVisible(true);
    return;
}
if (availablePoints < selectedItem.getCost()) {
    Error error = new Error();
    error.SetErrorMsg("Insufficient points");
    error.setVisible(true);
    return;
} else {
    this.home.addPoints(-1*selectedItem.getCost());
}
this.home.updateHappiness(selectedItem.getBoost_1());
this.setVisible(false);
this.dispose();
}//GEN-LAST:event_useItemActionPerformed

```

```

// Variables declaration - do not modify//GEN-BEGIN:variables
private javax.swing.JLabel BoostName;
private javax.swing.JLabel BoostValue;
private javax.swing.JLabel Cost;
private javax.swing.JLabel CostValue;
private javax.swing.JPanel Toy;
private javax.swing.JLabel ToyImage;
private javax.swing.JList<String> ToyList;
private javax.swing.JScrollPane ToyPanel;
private javax.swing.JButton useItem;
// End of variables declaration//GEN-END:variables
}

```

//FILE: TaskFriend/src/tamagui/Item.java

/*

```
* Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt
to change this license
* Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java
to edit this template
*/
package tamagui;

/**
 * Authors/Contributors in alphabetical order.
 * @author Arpita Sakshee
 * @author Christian Villanueva
 * @author Katrina Mai
 * @author Maya Louise Dagdag
 */
public class Item {
    private final String name;
    private final int cost;
    private final int boost_1;
    private final int boost_2;

    public Item(String name, int cost, int boost_1, int boost_2){
        this.name = name;
        this.cost = cost;
        this.boost_1 = boost_1;
        this.boost_2 = boost_2;
    }

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

    public int getCost(){
        return this.cost;
    }

    public int getBoost_1(){
        return this.boost_1;
    }

    public int getBoost_2(){
        return this.boost_2;
    }
}
```

```
//FILE: TaskFriend/src/tamagui/Play.form
<?xml version="1.0" encoding="UTF-8" ?>

<Form version="1.3" maxVersion="1.9"
type="org.netbeans.modules.form.forminfo.JFrameFormInfo">
    <Properties>
        <Property name="defaultCloseOperation" type="int" value="2"/>
        <Property name="title" type="java.lang.String" value="Play"/>
    </Properties>
    <SyntheticProperties>
        <SyntheticProperty name="formSizePolicy" type="int" value="1"/>
        <SyntheticProperty name="generateCenter" type="boolean"
value="false"/>
    </SyntheticProperties>
    <AuxValues>
        <AuxValue name="FormSettings_autoResourcing"
type="java.lang.Integer" value="0"/>
        <AuxValue name="FormSettings_autoSetComponentName"
type="java.lang.Boolean" value="false"/>
        <AuxValue name="FormSettings_generateFQN" type="java.lang.Boolean"
value="true"/>
        <AuxValue name="FormSettings_generateMnemonicsCode"
type="java.lang.Boolean" value="false"/>
        <AuxValue name="FormSettings_i18nAutoMode"
type="java.lang.Boolean" value="false"/>
        <AuxValue name="FormSettings_layoutCodeTarget"
type="java.lang.Integer" value="1"/>
        <AuxValue name="FormSettings_listenerGenerationStyle"
type="java.lang.Integer" value="0"/>
        <AuxValue name="FormSettings_variablesLocal"
type="java.lang.Boolean" value="false"/>
        <AuxValue name="FormSettings_variablesModifier"
type="java.lang.Integer" value="2"/>
    </AuxValues>

    <Layout>
        <DimensionLayout dim="0">
            <Group type="103" groupAlignment="0" attributes="0">
                <Group type="102" attributes="0">
                    <Group type="103" groupAlignment="0" attributes="0">
                        <Group type="102" attributes="0">
                            <EmptySpace min="-2" pref="67" max="-2"
attributes="0"/>
                            <Component id="PlayGame" min="-2" max="-2"
attributes="0"/>
                        </Group>
                    </Group>
                </Group>
            </Group>
        </DimensionLayout>
    </Layout>

```

```

        </Group>
        <Group type="102" alignment="0" attributes="0">
            <EmptySpace min="-2" pref="31" max="-2"
attributes="0"/>
            <Group type="103" groupAlignment="0"
attributes="0">
                <Component id="jPanel1" min="-2" max="-2"
attributes="0"/>
                <Component id="PlayInfo" min="-2" pref="255"
max="-2" attributes="0"/>
            </Group>
        </Group>
    </Group>
    <EmptySpace pref="27" max="32767" attributes="0"/>
</Group>
</Group>
</DimensionLayout>
<DimensionLayout dim="1">
    <Group type="103" groupAlignment="0" attributes="0">
        <Group type="102" alignment="0" attributes="0">
            <EmptySpace min="-2" pref="23" max="-2" attributes="0"/>
            <Component id="PlayGame" min="-2" max="-2"
attributes="0"/>
            <EmptySpace type="unrelated" max="-2" attributes="0"/>
            <Component id="PlayInfo" min="-2" pref="152" max="-2"
attributes="0"/>
            <EmptySpace type="separate" max="-2" attributes="0"/>
            <Component id="jPanel1" min="-2" max="-2"
attributes="0"/>
            <EmptySpace pref="15" max="32767" attributes="0"/>
        </Group>
    </Group>
</DimensionLayout>
</Layout>
<SubComponents>
    <Component class="javax.swing.JLabel" name="PlayGame">
        <Properties>
            <Property name="text" type="java.lang.String" value="Guess the
number"/>
        </Properties>
    </Component>
    <Container class="javax.swing.JScrollPane" name="PlayInfo">
        <AuxValues>
            <AuxValue name="autoScrollPane" type="java.lang.Boolean"
value="true"/>

```

```

    </AuxValues>

    <Layout
class="org.netbeans.modules.form.compat2.layouts.support.JScrollPaneSupportLayout"/>
    <SubComponents>
        <Component class="javax.swing.JTextArea" name="PlayInfoText">
            <Properties>
                <Property name="editable" type="boolean" value="false"/>
                <Property name="columns" type="int" value="20"/>
                <Property name="lineWrap" type="boolean" value="true"/>
                <Property name="rows" type="int" value="5"/>
                <Property name="text" type="java.lang.String" value="Your
little friend will give you a random number between 1-9. Your goal is
to guess whether the next number it thinks of will be higher or lower
than the 5. Note that it cannot pick a number higher than 9, or lower
than 1."/>
                <Property name="wrapStyleWord" type="boolean"
value="true"/>
            </Properties>
        </Component>
    </SubComponents>
</Container>
<Container class="javax.swing.JPanel" name="jPanel1">

    <Layout>
        <DimensionLayout dim="0">
            <Group type="103" groupAlignment="0" attributes="0">
                <Group type="102" alignment="0" attributes="0">
                    <EmptySpace min="-2" pref="43" max="-2"
attributes="0"/>
                    <Group type="103" groupAlignment="1" max="-2"
attributes="0">
                        <Component id="BoostName1" alignment="1"
max="32767" attributes="0"/>
                        <Component id="Guess" alignment="0" max="32767"
attributes="0"/>
                        <Component id="PlayChoice" alignment="1"
pref="162" max="32767" attributes="0"/>
                        <Component id="BoostName" alignment="0"
max="32767" attributes="0"/>
                        <Component id="jLabel1" alignment="1"
max="32767" attributes="0"/>
                </Group>
                <EmptySpace pref="24" max="32767" attributes="0"/>
            </Group>
        </DimensionLayout>
    </Layout>

```

```

        </Group>
    </Group>
</DimensionLayout>
<DimensionLayout dim="1">
    <Group type="103" groupAlignment="0" attributes="0">
        <Group type="102" alignment="1" attributes="0">
            <EmptySpace max="-2" attributes="0"/>
            <Component id="PlayChoice" max="32767"
attributes="0"/>
                <EmptySpace type="unrelated" max="-2"
attributes="0"/>
                    <Component id="BoostName" min="-2" pref="21"
max="-2" attributes="0"/>
                        <EmptySpace max="32767" attributes="0"/>
                        <Component id="BoostName1" min="-2" pref="21"
max="-2" attributes="0"/>
                            <EmptySpace min="-2" pref="12" max="-2"
attributes="0"/>
                            <Component id="jLabel1" min="-2" max="-2"
attributes="0"/>
                            <EmptySpace type="unrelated" max="-2"
attributes="0"/>
                            <Component id="Guess" min="-2" max="-2"
attributes="0"/>
                            <EmptySpace min="-2" pref="12" max="-2"
attributes="0"/>
                    </Group>
                </Group>
            </DimensionLayout>
        </Layout>
<SubComponents>
    <Component class="javax.swing.JButton" name="Guess">
        <Properties>
            <Property name="text" type="java.lang.String"
value="Guess"/>
        </Properties>
        <Events>
            <EventHandler event="actionPerformed"
listener="java.awt.event.ActionListener"
parameters="java.awt.event.ActionEvent"
handler="GuessActionPerformed"/>
        </Events>
    </Component>
    <Component class="javax.swing.JComboBox" name="PlayChoice">
        <Properties>

```

```
        <Property name="model" type="javax.swing.ComboBoxModel"
editor="org.netbeans.modules.form.editors2.ComboBoxModelEditor">
            <StringArray count="2">
                <StringItem index="0" value="Higher"/>
                <StringItem index="1" value="Lower"/>
            </StringArray>
        </Property>
    </Properties>
    <Events>
        <EventHandler event="actionPerformed"
listener="java.awt.event.ActionListener"
parameters="java.awt.event.ActionEvent"
handler="PlayChoiceActionPerformed"/>
    </Events>
    <AuxValues>
        <AuxValue name="JavaCodeGenerator_TypeParameters"
type="java.lang.String" value="&lt;String&gt;"/>
    </AuxValues>
</Component>
<Component class="javax.swing.JLabel" name="jLabel1">
    <Properties>
        <Property name="horizontalAlignment" type="int"
value="0"/>
            <Property name="text" type="java.lang.String" value="Cost:
50"/>
        </Properties>
    </Component>
    <Component class="javax.swing.JLabel" name="BoostName">
        <Properties>
            <Property name="horizontalAlignment" type="int"
value="0"/>
                <Property name="text" type="java.lang.String"
value="Happiness: +30"/>
            </Properties>
        </Component>
        <Component class="javax.swing.JLabel" name="BoostName1">
            <Properties>
                <Property name="horizontalAlignment" type="int"
value="0"/>
                    <Property name="text" type="java.lang.String"
value="Wellness: +10"/>
                </Properties>
            </Component>
        </SubComponents>
    </Container>
```

```
</SubComponents>
</Form>
```

//FILE: TaskFriend/src/tamagui/Play.java

```
/*
 * Click
nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt
to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JFrame.java
to edit this template
 */
package tamagui;

import java.util.Random;

/**
 * Authors/Contributors in alphabetical order.
 * @author Arpita Sakhee
 * @author Christian Villanueva
 * @author Katrina Mai
 * @author Maya Louise Dagdag
 */
public class Play extends javax.swing.JFrame {
    private final TamaGuiHome home;

    /**
     * Creates new form Play
     * @param home
     */
    public Play(TamaGuiHome home) {
        initComponents();
        this.home=home;
    }

    /**
     * This method is called from within the constructor to initialize
     * the form.
     * WARNING: Do NOT modify this code. The content of this method is
     * always
     * regenerated by the Form Editor.
     */
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated
Code">//GEN-BEGIN:initComponents
    
```

```

private void initComponents() {

    PlayGame = new javax.swing.JLabel();
    PlayInfo = new javax.swing.JScrollPane();
    PlayInfoText = new javax.swing.JTextArea();
    jPanel1 = new javax.swing.JPanel();
    Guess = new javax.swing.JButton();
    PlayChoice = new javax.swing.JComboBox<>();
    jLabel1 = new javax.swing.JLabel();
    BoostName = new javax.swing.JLabel();
    BoostName1 = new javax.swing.JLabel();

    setDefaultCloseOperation(javax.swing.WindowConstants.DISPOSE_ON_CLOSE);
    setTitle("Play");

    PlayGame.setText("Guess the number");

    PlayInfoText.setEditable(false);
    PlayInfoText.setColumns(20);
    PlayInfoText.setLineWrap(true);
    PlayInfoText.setRows(5);
    PlayInfoText.setText("Your little friend will give you a
random number between 1-9. Your goal is to guess whether the next
number it thinks of will be higher or lower than the 5. Note that it
cannot pick a number higher than 9, or lower than 1.");
    PlayInfoText.setWrapStyleWord(true);
    PlayInfo.setViewportView(PlayInfoText);

    Guess.setText("Guess");
    Guess.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent
evt) {
            GuessActionPerformed(evt);
        }
    });

    PlayChoice.setModel(new javax.swing.DefaultComboBoxModel<>(new
String[] { "Higher", "Lower" }));
    PlayChoice.addActionListener(new
java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent
evt) {
            PlayChoiceActionPerformed(evt);
        }
    });
}

```

```
        }
    });

jLabel1.setHorizontalAlignment(javax.swing.SwingConstants.CENTER);
    jLabel1.setText("Cost: 50");

BoostName.setHorizontalAlignment(javax.swing.SwingConstants.CENTER);
    BoostName.setText("Happiness: +30");

BoostName1.setHorizontalAlignment(javax.swing.SwingConstants.CENTER);
    BoostName1.setText("Wellness: +10");

    javax.swing.GroupLayout jPanel1Layout = new
javax.swing.GroupLayout(jPanel1);
    jPanel1.setLayout(jPanel1Layout);
    jPanel1Layout.setHorizontalGroup(
        jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(jPanel1Layout.createSequentialGroup()
                .addGap(43, 43, 43)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING, false)
                    .addComponent(BoostName1,
                    javax.swing.GroupLayout.DEFAULT_SIZE,
                    javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                    .addComponent(Guess,
                    javax.swing.GroupLayout.Alignment.LEADING,
                    javax.swing.GroupLayout.DEFAULT_SIZE,
                    javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                    .addComponent(PlayChoice, 0, 162, Short.MAX_VALUE)
                    .addComponent(BoostName,
                    javax.swing.GroupLayout.Alignment.LEADING,
                    javax.swing.GroupLayout.DEFAULT_SIZE,
                    javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                    .addComponent(jLabel1,
                    javax.swing.GroupLayout.DEFAULT_SIZE,
                    javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addGroup(jPanel1Layout.createSequentialGroup()
                        .addGap(24, 24, 24)
                        .addComponent(containerGap, Short.MAX_VALUE))
                    .addGroup(jPanel1Layout.createSequentialGroup()
                        .addGap(24, 24, 24)
                        .addComponent(verticalGap, Short.MAX_VALUE))))))
);

jPanel1Layout.setVerticalGroup(
    jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel1Layout.createSequentialGroup()
            .addGap(43, 43, 43)
            .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING, false)
                .addComponent(BoostName1,
                javax.swing.GroupLayout.DEFAULT_SIZE,
                javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addComponent(Guess,
                javax.swing.GroupLayout.Alignment.LEADING,
                javax.swing.GroupLayout.DEFAULT_SIZE,
                javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addComponent(PlayChoice, 0, 162, Short.MAX_VALUE)
                .addComponent(BoostName,
                javax.swing.GroupLayout.Alignment.LEADING,
                javax.swing.GroupLayout.DEFAULT_SIZE,
                javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addComponent(jLabel1,
                javax.swing.GroupLayout.DEFAULT_SIZE,
                javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
            .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(jPanel1Layout.createSequentialGroup()
                    .addGap(24, 24, 24)
                    .addComponent(containerGap, Short.MAX_VALUE))
                .addGroup(jPanel1Layout.createSequentialGroup()
                    .addGap(24, 24, 24)
                    .addComponent(verticalGap, Short.MAX_VALUE)))))))
```



```

        .addComponent(jPanel1,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(PlayInfo,
javax.swing.GroupLayout.PREFERRED_SIZE, 255,
javax.swing.GroupLayout.PREFERRED_SIZE)))
        .addContainerGap(27, Short.MAX_VALUE))
);
layout.setVerticalGroup(
layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addGroup(layout.createSequentialGroup()
.addGap(23, 23, 23)
.addComponent(PlayGame)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
.addComponent(PlayInfo,
javax.swing.GroupLayout.PREFERRED_SIZE, 152,
javax.swing.GroupLayout.PREFERRED_SIZE)
.addGap(18, 18, 18)
.addComponent(jPanel1,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
.addContainerGap(15, Short.MAX_VALUE))
);

pack();
}// </editor-fold>//GEN-END:initComponents

private void PlayChoiceActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:event_PlayChoiceActionPerformed
// TODO add your handling code here:
}//GEN-LAST:event_PlayChoiceActionPerformed

private void GuessActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:event_GuessActionPerformed
// TODO add your handling code here:
int availablePoints = this.home.getPoints();

if (availablePoints < 50) {
    Error error = new Error();
    error.SetErrorMsg("Insufficient points");
    error.setVisible(true);
}

```

```

        return;
    } else {
        this.home.addPoints(-50);
    }

    Random rand = new Random();
    int guess = rand.nextInt(8)+1; // Random 0-8 +1
    Error error = new Error();
    String userGuess= PlayChoice.getSelectedItem().toString();
    if ( ("Higher".equals(userGuess) && guess >5) || 
        ("Lower".equals(userGuess) && guess <5)) {
        error.SetErrorMsg("Avatar Guess " + guess + ".You Won.");
    } else {
        error.SetErrorMsg("Avatar Guess " + guess + ".You Loss.");
    }
    this.home.updateHappiness(30);
    this.home.updateWellness(10);
    error.setVisible(true);
    this.dispose();
}//GEN-LAST:event_GuessActionPerformed

```

```

// Variables declaration - do not modify//GEN-BEGIN:variables
private javax.swing.JLabel BoostName;
private javax.swing.JLabel BoostName1;
private javax.swing.JButton Guess;
private javax.swing.JComboBox<String> PlayChoice;
private javax.swing.JLabel PlayGame;
private javax.swing.JScrollPane PlayInfo;
private javax.swing.JTextArea PlayInfoText;
private javax.swing.JLabel jLabel1;
private javax.swing.JPanel jPanel1;
// End of variables declaration//GEN-END:variables
}

```

```

//FILE: TaskFriend/src/tamagui/StatScreen.form

<?xml version="1.0" encoding="UTF-8" ?>

<Form version="1.3" maxVersion="1.9"
type="org.netbeans.modules.form.forminfo.JFrameFormInfo">
<Properties>
    <Property name="defaultCloseOperation" type="int" value="3"/>
</Properties>
<SyntheticProperties>

```

```

<SyntheticProperty name="formSizePolicy" type="int" value="1"/>
    <SyntheticProperty name="generateCenter" type="boolean"
value="false"/>
</SyntheticProperties>
<AuxValues>
    <AuxValue name="FormSettings_autoResourcing"
type="java.lang.Integer" value="0"/>
    <AuxValue name="FormSettings_autoSetComponentName"
type="java.lang.Boolean" value="false"/>
    <AuxValue name="FormSettings_generateFQN" type="java.lang.Boolean"
value="true"/>
    <AuxValue name="FormSettings_generateMnemonicsCode"
type="java.lang.Boolean" value="false"/>
    <AuxValue name="FormSettings_i18nAutoMode"
type="java.lang.Boolean" value="false"/>
    <AuxValue name="FormSettings_layoutCodeTarget"
type="java.lang.Integer" value="1"/>
    <AuxValue name="FormSettings_listenerGenerationStyle"
type="java.lang.Integer" value="0"/>
    <AuxValue name="FormSettings_variablesLocal"
type="java.lang.Boolean" value="false"/>
    <AuxValue name="FormSettings_variablesModifier"
type="java.lang.Integer" value="2"/>
</AuxValues>

<Layout>
    <DimensionLayout dim="0">
        <Group type="103" groupAlignment="0" attributes="0">
            <Group type="102" attributes="0">
                <Group type="103" groupAlignment="0" attributes="0">
                    <Component id="FullnessBar" alignment="0" pref="386"
max="32767" attributes="0"/>
                    <Component id="WellnessBar" alignment="0"
max="32767" attributes="0"/>
                    <Component id="HappinessBar" alignment="0"
max="32767" attributes="0"/>
                <Group type="102" attributes="0">
                    <Group type="103" groupAlignment="0"
attributes="0">
                        <Component id="WellnessLabel" alignment="0"
min="-2" max="-2" attributes="0"/>
                        <Component id="HappinessLabel" min="-2"
max="-2" attributes="0"/>
                        <Component id="FullnessLabel" min="-2"
max="-2" attributes="0"/>

```

```

        </Group>
        <EmptySpace min="0" pref="0" max="32767"
attributes="0"/>
        </Group>
        </Group>
        <EmptySpace max="-2" attributes="0"/>
    </Group>
</Group>
</DimensionLayout>
<DimensionLayout dim="1">
    <Group type="103" groupAlignment="0" attributes="0">
        <Group type="102" alignment="0" attributes="0">
            <EmptySpace min="-2" pref="19" max="-2" attributes="0"/>
            <Component id="HappinessLabel" min="-2" max="-2"
attributes="0"/>
            <EmptySpace max="-2" attributes="0"/>
            <Component id="HappinessBar" min="-2" pref="24" max="-2"
attributes="0"/>
            <EmptySpace min="-2" pref="23" max="-2" attributes="0"/>
            <Component id="FullnessLabel" min="-2" max="-2"
attributes="0"/>
            <EmptySpace max="-2" attributes="0"/>
            <Component id="FullnessBar" min="-2" pref="24" max="-2"
attributes="0"/>
            <EmptySpace type="separate" max="-2" attributes="0"/>
            <Component id="WellnessLabel" min="-2" max="-2"
attributes="0"/>
            <EmptySpace max="-2" attributes="0"/>
            <Component id="WellnessBar" min="-2" pref="24" max="-2"
attributes="0"/>
            <EmptySpace pref="32" max="32767" attributes="0"/>
        </Group>
    </Group>
</DimensionLayout>
</Layout>
<SubComponents>
    <Component class="javax.swing.JProgressBar" name="FullnessBar">
        <Properties>
            <Property name="stringPainted" type="boolean" value="true"/>
        </Properties>
    </Component>
    <Component class="javax.swing.JProgressBar" name="HappinessBar">
        <Properties>
            <Property name="stringPainted" type="boolean" value="true"/>
        </Properties>

```

```
</Component>
<Component class="javax.swing.JProgressBar" name="WellnessBar">
    <Properties>
        <Property name="stringPainted" type="boolean" value="true"/>
    </Properties>
</Component>
<Component class="javax.swing.JLabel" name="HappinessLabel">
    <Properties>
        <Property name="font" type="java.awt.Font"
editor="org.netbeans.beaninfo.editors.FontEditor">
            <Font name="Helvetica Neue" size="14" style="0"/>
        </Property>
        <Property name="text" type="java.lang.String"
value="Happiness"/>
        <Property name="toolTipText" type="java.lang.String"
value="Decrease every 5 second"/>
    </Properties>
</Component>
<Component class="javax.swing.JLabel" name="FullnessLabel">
    <Properties>
        <Property name="font" type="java.awt.Font"
editor="org.netbeans.beaninfo.editors.FontEditor">
            <Font name="Helvetica Neue" size="14" style="0"/>
        </Property>
        <Property name="text" type="java.lang.String"
value="Fullness"/>
        <Property name="toolTipText" type="java.lang.String"
value="Decrease every 10 second"/>
    </Properties>
</Component>
<Component class="javax.swing.JLabel" name="WellnessLabel">
    <Properties>
        <Property name="font" type="java.awt.Font"
editor="org.netbeans.beaninfo.editors.FontEditor">
            <Font name="Helvetica Neue" size="14" style="0"/>
        </Property>
        <Property name="text" type="java.lang.String"
value="Wellness"/>
        <Property name="toolTipText" type="java.lang.String"
value="Decrease every 30 second"/>
    </Properties>
</Component>
</SubComponents>
</Form>
```


//FILE: TaskFriend/src/tamogui/StatScreen.java

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt
 * to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JFrame.java
 * to edit this template
 */
package tamogui;

/**
 * Authors/Contributors in alphabetical order.
 * @author Arpita Sakshee
 * @author Christian Villanueva
 * @author Katrina Mai
 * @author Maya Louise Dagdag
 */
public class StatScreen extends javax.swing.JFrame {
    private int fullness;
    private int happiness;
    private int wellness;
    /**
     * Creates new form StatScreen
     */
    public StatScreen() {
        initComponents();
    }

    /**
     * This method is called from within the constructor to initialize
     * the form.
     * WARNING: Do NOT modify this code. The content of this method is
     * always
     * regenerated by the Form Editor.
     */
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated
    Code">//GEN-BEGIN:initComponents
    private void initComponents() {

        FullnessBar = new javax.swing.JProgressBar();
        HappinessBar = new javax.swing.JProgressBar();
        WellnessBar = new javax.swing.JProgressBar();
        HappinessLabel = new javax.swing.JLabel();
    }
}
```

```
FullnessLabel = new javax.swing.JLabel();
WellnessLabel = new javax.swing.JLabel();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

FullnessBar.setStringPainted(true);

HappinessBar.setStringPainted(true);

WellnessBar.setStringPainted(true);

HappinessLabel.setFont(new java.awt.Font("Helvetica Neue", 0,
14)); // NOI18N
HappinessLabel.setText("Happiness");
HappinessLabel.setToolTipText("Decrease every 5 second");

FullnessLabel.setFont(new java.awt.Font("Helvetica Neue", 0,
14)); // NOI18N
FullnessLabel.setText("Fullness");
FullnessLabel.setToolTipText("Decrease every 10 second");

WellnessLabel.setFont(new java.awt.Font("Helvetica Neue", 0,
14)); // NOI18N
WellnessLabel.setText("Wellness");
WellnessLabel.setToolTipText("Decrease every 30 second");

javax.swing.GroupLayout layout = new
javax.swing.GroupLayout(getContentPane());
getContentPane().setLayout(layout);
layout.setHorizontalGroup(
layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addGroup(layout.createSequentialGroup()
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addComponent(FullnessBar,
javax.swing.GroupLayout.DEFAULT_SIZE, 386, Short.MAX_VALUE)
.addComponent(WellnessBar,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
.addComponent(HappinessBar,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
```

```

        .addGroup(layout.createSequentialGroup())

.layout.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment
.LEADING)
        .addComponent(WellnessLabel)
        .addComponent(HappinessLabel)
        .addComponent(FullnessLabel))
        .addGap(0, 0, Short.MAX_VALUE)))
    .addContainerGap())
);
layout.setVerticalGroup(
layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(layout.createSequentialGroup()
        .addGap(19, 19, 19)
        .addComponent(HappinessLabel)

    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addComponent(HappinessBar,
javax.swing.GroupLayout.PREFERRED_SIZE, 24,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(23, 23, 23)
        .addComponent(FullnessLabel)

    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addComponent(FullnessBar,
javax.swing.GroupLayout.PREFERRED_SIZE, 24,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(18, 18, 18)
        .addComponent(WellnessLabel)

    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addComponent(WellnessBar,
javax.swing.GroupLayout.PREFERRED_SIZE, 24,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addContainerGap(32, Short.MAX_VALUE))
);

    pack();
}// </editor-fold>//GEN-END:initComponents

public void updateFullness(int fullness) {
//OverFlow
if (this.fullness + fullness > 100){
    this.fullness = 100;
}

```

```
        }else if (this.fullness + fullness <= 0) {
            // underflow
            this.fullness = 0;
        }else {
            this.fullness += fullness;
        }
        FullnessBar.setValue(this.fullness);
    }

public void updateWellness(int wellness) {
    //OverFlow
    if (this.wellness + wellness > 100){
        this.wellness = 100;
    }else if (this.wellness + wellness <= 0) {
        // underflow
        this.wellness = 0;
    }else {
        this.wellness += wellness;
    }
    WellnessBar.setValue(this.wellness);
}

public void updateHappiness(int happiness) {
    //OverFlow
    if (this.happiness + happiness > 100){
        this.happiness = 100;
    }else if (this.happiness + happiness <= 0) {
        // underflow
        this.happiness = 0;
    }else {
        this.happiness += happiness;
    }
    HappinessBar.setValue(this.happiness);
}

public int getFullness() {
    return this.fullness;
}

public int getWellness() {
    return this.wellness;
}

public int getHappiness() {
```

```

        return this.happiness;
    }

// Variables declaration - do not modify//GEN-BEGIN:variables
private javax.swing.JProgressBar FullnessBar;
private javax.swing.JLabel FullnessLabel;
private javax.swing.JProgressBar HappinessBar;
private javax.swing.JLabel HappinessLabel;
private javax.swing.JProgressBar WellnessBar;
private javax.swing.JLabel WellnessLabel;
// End of variables declaration//GEN-END:variables
}

//FILE: TaskFriend/src/tamagui/TamaGuiHome.form

<?xml version="1.0" encoding="UTF-8" ?>

<Form version="1.3" maxVersion="1.9"
type="org.netbeans.modules.form.forminfo.JFrameFormInfo">
<NonVisualComponents>
<Container class="javax.swing.JPanel" name="StatScreenPanel">

<Layout>
<DimensionLayout dim="0">
<Group type="103" groupAlignment="0" attributes="0">
<EmptySpace min="0" pref="0" max="32767"
attributes="0"/>
</Group>
</DimensionLayout>
<DimensionLayout dim="1">
<Group type="103" groupAlignment="0" attributes="0">
<EmptySpace min="0" pref="213" max="32767"
attributes="0"/>
</Group>
</DimensionLayout>
</Layout>
</Container>
</NonVisualComponents>
<Properties>
<Property name="defaultCloseOperation" type="int" value="3"/>
<Property name="title" type="java.lang.String"
value="TaskFriend"/>
</Properties>
<SyntheticProperties>
<SyntheticProperty name="formSizePolicy" type="int" value="1"/>

```

```

        <SyntheticProperty name="generateCenter" type="boolean"
value="false"/>
    </SyntheticProperties>
    <Events>
        <EventHandler event="mouseClicked"
listener="java.awt.event.MouseListener"
parameters="java.awt.event.MouseEvent" handler="formMouseClicked"/>
    </Events>
    <AuxValues>
        <AuxValue name="FormSettings_autoResourcing"
type="java.lang.Integer" value="0"/>
        <AuxValue name="FormSettings_autoSetComponentName"
type="java.lang.Boolean" value="false"/>
        <AuxValue name="FormSettings_generateFQN" type="java.lang.Boolean"
value="true"/>
        <AuxValue name="FormSettings_generateMnemonicsCode"
type="java.lang.Boolean" value="false"/>
        <AuxValue name="FormSettings_i18nAutoMode"
type="java.lang.Boolean" value="false"/>
        <AuxValue name="FormSettings_layoutCodeTarget"
type="java.lang.Integer" value="1"/>
        <AuxValue name="FormSettings_listenerGenerationStyle"
type="java.lang.Integer" value="0"/>
        <AuxValue name="FormSettings_variablesLocal"
type="java.lang.Boolean" value="false"/>
        <AuxValue name="FormSettings_variablesModifier"
type="java.lang.Integer" value="2"/>
    </AuxValues>

    <Layout>
        <DimensionLayout dim="0">
            <Group type="103" groupAlignment="0" attributes="0">
                <Group type="102" alignment="1" attributes="0">
                    <Group type="103" groupAlignment="0" max="-2"
attributes="0">
                        <Group type="102" attributes="0">
                            <EmptySpace min="-2" pref="21" max="-2"
attributes="0"/>
                            <Component id="ToDoListLabel" min="-2" max="-2"
attributes="0"/>
                            <EmptySpace max="32767" attributes="0"/>
                            <Component id="TaskCounter" min="-2" pref="43"
max="-2" attributes="0"/>
                        </Group>
                    <Group type="102" attributes="0">

```

```

        <EmptySpace min="-2" pref="20" max="-2"
attributes="0"/>
            <Component id="ToDoListPanel" min="-2"
pref="289" max="-2" attributes="0"/>
                </Group>
            </Group>
            <EmptySpace type="separate" max="-2" attributes="0"/>
            <Group type="103" groupAlignment="0" max="-2"
attributes="0">
                <Component id="AvatarPanel" min="-2" pref="255"
max="-2" attributes="0"/>
                <Component id="ControlPanel" max="32767"
attributes="0"/>
                </Group>
                <EmptySpace max="32767" attributes="0"/>
            </Group>
        </Group>
    </DimensionLayout>
    <DimensionLayout dim="1">
        <Group type="103" groupAlignment="0" attributes="0">
            <Group type="102" alignment="1" attributes="0">
                <EmptySpace max="-2" attributes="0"/>
                <Group type="103" groupAlignment="3" attributes="0">
                    <Component id="ToDoListLabel" alignment="3" min="-2"
max="-2" attributes="0"/>
                    <Component id="TaskCounter" alignment="3" min="-2"
max="-2" attributes="0"/>
                </Group>
                <EmptySpace max="-2" attributes="0"/>
                <Group type="103" groupAlignment="0" attributes="0">
                    <Group type="102" alignment="0" attributes="0">
                        <Component id="ToDoListPanel" max="32767"
attributes="0"/>
                        <EmptySpace min="-2" pref="20" max="-2"
attributes="0"/>
                    </Group>
                    <Group type="102" alignment="0" attributes="0">
                        <Component id="AvatarPanel" min="-2" max="-2"
attributes="0"/>
                        <EmptySpace type="separate" max="-2"
attributes="0"/>
                        <Component id="ControlPanel" min="-2" max="-2"
attributes="0"/>
                        <EmptySpace pref="17" max="32767"
attributes="0"/>
                    </Group>
                </Group>
            </Group>
        </Group>
    </DimensionLayout>

```

```

                </Group>
            </Group>
        </Group>
    </Group>
</DimensionLayout>
</Layout>
<SubComponents>
    <Component class="javax.swing.JLabel" name="ToDoListLabel">
        <Properties>
            <Property name="font" type="java.awt.Font"
editor="org.netbeans.beaninfo.editors.FontEditor">
                <Font name="Helvetica Neue" size="18" style="1"/>
            </Property>
            <Property name="text" type="java.lang.String" value="To-Do
List"/>
        </Properties>
    </Component>
    <Container class="javax.swing.JScrollPane" name="ToDoListPanel">
        <AuxValues>
            <AuxValue name="autoScrollPane" type="java.lang.Boolean"
value="true"/>
        </AuxValues>

        <Layout
class="org.netbeans.modules.form.compat2.layouts.support.JScrollPaneSu
pportLayout" />
        <SubComponents>
            <Component class="javax.swing.JList" name="ToDoList">
                <Properties>
                    <Property name="model" type="javax.swing.ListModel"
editor="org.netbeans.modules.form.RADConnectionPropertyEditor">
                        <Connection code="new
javax.swing.AbstractListModel<String>() {&#xa;    String[]
strings = {};&#xa;    public int getSize() { return strings.length;
}&#xa;    public String getElementAt(int i) { return strings[i];
}&#xa;}" type="code"/>
                    </Property>
                </Properties>
                <Events>
                    <EventHandler event="valueChanged"
listener="javax.swing.event.ListSelectionListener"
parameters="javax.swing.event.ListSelectionEvent"
handler="ToDoListValueChanged"/>
                </Events>
            <AuxValues>

```

```

        <AuxValue name="JavaCodeGenerator_CreateCodeCustom"
type="java.lang.String" value="new javax.swing.JList<>();"/>
            <AuxValue name="JavaCodeGenerator_TypeParameters"
type="java.lang.String" value="String"/>
        </AuxValues>
    </Component>
</SubComponents>
</Container>
<Container class="javax.swing.JPanel" name="AvatarPanel">
    <Properties>
        <Property name="background" type="java.awt.Color"
editor="org.netbeans.beaninfo.editors.ColorEditor">
            <Color blue="cc" green="cc" red="cc" type="rgb"/>
        </Property>
        <Property name="border" type="javax.swing.border.Border"
editor="org.netbeans.modules.form.editors2.BorderEditor">
            <Border
info="org.netbeans.modules.form.compat2.border.LineBorderInfo">
                <LineBorder/>
            </Border>
        </Property>
    </Properties>

    <Layout>
        <DimensionLayout dim="0">
            <Group type="103" groupAlignment="0" attributes="0">
                <Group type="102" alignment="1" attributes="0">
                    <Group type="103" groupAlignment="1" attributes="0">
                        <Group type="102" attributes="0">
                            <EmptySpace max="32767" attributes="0"/>
                            <Component id="InteractionPanel" min="-2"
max="-2" attributes="0"/>
                        </Group>
                    <Group type="102" attributes="0">
                        <EmptySpace min="-2" pref="13" max="-2"
attributes="0"/>
                    <Group type="103" groupAlignment="1"
attributes="0">
                        <Component id="AddTaskButton" min="-2"
max="-2" attributes="0"/>
                    <Component id="EditTaskButton" min="-2"
max="-2" attributes="0"/>
                </Group>
                <EmptySpace min="-2" pref="18" max="-2"
attributes="0"/>
            </Group>
        </DimensionLayout>
    </Layout>

```

```

                <Group type="103" groupAlignment="0"
attributes="0">
                    <Component id="CompleteTaskButton"
max="32767" attributes="0"/>
                    <Component id="RemoveTaskButton"
max="32767" attributes="0"/>
                </Group>
            </Group>
        <EmptySpace min="-2" pref="122" max="-2"
attributes="0"/>
    </Group>
</DimensionLayout>
<DimensionLayout dim="1">
    <Group type="103" groupAlignment="0" attributes="0">
        <Group type="102" alignment="0" attributes="0">
            <EmptySpace min="-2" pref="26" max="-2"
attributes="0"/>
        <Component id="InteractionPanel" min="-2" max="-2"
attributes="0"/>
            <EmptySpace max="-2" attributes="0"/>
            <Group type="103" groupAlignment="3" attributes="0">
                <Component id="AddTaskButton" alignment="3"
min="-2" max="-2" attributes="0"/>
                <Component id="RemoveTaskButton" alignment="3"
min="-2" max="-2" attributes="0"/>
            </Group>
            <EmptySpace max="-2" attributes="0"/>
            <Group type="103" groupAlignment="3" attributes="0">
                <Component id="EditTaskButton" alignment="3"
min="-2" max="-2" attributes="0"/>
                <Component id="CompleteTaskButton" alignment="3"
min="-2" max="-2" attributes="0"/>
            </Group>
            <EmptySpace pref="14" max="32767" attributes="0"/>
        </Group>
    </Group>
</DimensionLayout>
</Layout>
<SubComponents>
    <Container class="javax.swing.JPanel" name="InteractionPanel">
        <Properties>
            <Property name="background" type="java.awt.Color"
editor="org.netbeans.beaninfo.editors.ColorEditor">

```

```

        <Color blue="ff" green="ff" red="ff" type="rgb"/>
    </Property>
    <Property name="border" type="javax.swing.border.Border">
editor="org.netbeans.modules.form.editors2.BorderEditor">
    <Border
info="org.netbeans.modules.form.compat2.border.LineBorderInfo">
        <LineBorder/>
    </Border>
</Property>
</Properties>
<Events>
    <EventHandler event="mouseClicked"
listener="java.awt.event.MouseListener"
parameters="java.awt.event.MouseEvent"
handler="InteractionPanelMouseClicked"/>
</Events>

<Layout>
    <DimensionLayout dim="0">
        <Group type="103" groupAlignment="0" attributes="0">
            <Group type="102" attributes="0">
                <EmptySpace max="-2" attributes="0"/>
            <Group type="103" groupAlignment="0"
attributes="0">
                <Component id="HealthBar" alignment="1"
max="32767" attributes="0"/>
                <Group type="102" attributes="0">
                    <Group type="103" groupAlignment="0"
attributes="0">
                        <Group type="102" attributes="0">
                            <Group type="103"
groupAlignment="0" attributes="0">
                                <Component id="AvatarName"
min="-2" max="-2" attributes="0"/>
                                <Group type="102"
attributes="0">
                                    <EmptySpace min="12"
pref="12" max="-2" attributes="0"/>
                                    <Component id="Avatar"
min="-2" pref="143" max="-2" attributes="0"/>
                                </Group>
                            </Group>
                            <EmptySpace max="-2"
attributes="0"/>
                        </Group>
                    </Group>
                </Group>
            </Group>
        </Group>
    </DimensionLayout>
</Layout>

```

```

                <Group type="103"
groupAlignment="0" max="-2" attributes="0">
                    <Component id="PointsLabel"
max="32767" attributes="0"/>
                    <Component
id="PointsCounter" max="32767" attributes="0"/>
                </Group>
            </Group>
            <Group type="102" alignment="0"
attributes="0">
                <EmptySpace min="-2" pref="49"
max="-2" attributes="0"/>
                <Component id="HealthLabel"
min="-2" max="-2" attributes="0"/>
            </Group>
        </Group>
        <EmptySpace min="0" pref="4" max="32767"
attributes="0"/>
    </Group>
</Group>
<EmptySpace max="-2" attributes="0"/>
</Group>
</Group>
</DimensionLayout>
<DimensionLayout dim="1">
    <Group type="103" groupAlignment="0" attributes="0">
        <Group type="102" alignment="0" attributes="0">
            <EmptySpace max="-2" attributes="0"/>
            <Group type="103" groupAlignment="0" max="-2"
attributes="0">
                <Group type="102" alignment="0"
attributes="0">
                    <Component id="PointsCounter" min="-2"
pref="32" max="-2" attributes="0"/>
                    <EmptySpace max="-2" attributes="0"/>
                    <Component id="PointsLabel" min="-2"
max="-2" attributes="0"/>
                <EmptySpace min="-2" pref="110" max="-2"
attributes="0"/>
            </Group>
            <Group type="102" alignment="0"
attributes="0">
                <Component id="AvatarName" min="-2"
max="-2" attributes="0"/>
            <EmptySpace max="32767" attributes="0"/>
        </Group>
    </Group>

```

```

                <Component id="Avatar" min="-2"
pref="131" max="-2" attributes="0"/>
                    <EmptySpace max="-2" attributes="0"/>
                </Group>
            </Group>
            <Component id="HealthLabel" min="-2" max="-2"
attributes="0"/>
                <EmptySpace max="-2" attributes="0"/>
                <Component id="HealthBar" pref="23" max="32767"
attributes="0"/>
                    <EmptySpace max="-2" attributes="0"/>
                </Group>
            </Group>
        </DimensionLayout>
    </Layout>
    <SubComponents>
        <Component class="javax.swing.JLabel" name="Avatar">
            <Properties>
                <Property name="background" type="java.awt.Color"
editor="org.netbeans.beaninfo.editors.ColorEditor">
                    <Color blue="ff" green="ff" red="ff" type="rgb"/>
                </Property>
                <Property name="horizontalAlignment" type="int"
value="4"/>
            </Properties>
        </Component>
        <Component class="javax.swing.JLabel" name="AvatarName">
            <Properties>
                <Property name="text" type="java.lang.String"
value="Avatar Name"/>
            </Properties>
            <Events>
                <EventHandler event="mouseClicked"
listener="java.awt.event.MouseListener"
parameters="java.awt.event.MouseEvent"
handler="AvatarNameMouseClicked"/>
            </Events>
        </Component>
        <Component class="javax.swing.JLabel" name="PointsLabel">
            <Properties>
                <Property name="font" type="java.awt.Font"
editor="org.netbeans.beaninfo.editors.FontEditor">
                    <Font name="Helvetica Neue" size="14" style="0"/>
                </Property>

```

```

        <Property name="text" type="java.lang.String"
value="Points"/>
    </Properties>
</Component>
<Component class="javax.swing.JProgressBar"
name="HealthBar">
    <Properties>
        <Property name="stringPainted" type="boolean"
value="true"/>
    </Properties>
</Component>
<Component class="javax.swing.JLabel"
name="PointsCounter">
    <Properties>
        <Property name="font" type="java.awt.Font"
editor="org.netbeans.beaninfo.editors.FontEditor">
            <Font name="Helvetica Neue" size="32" style="1"/>
        </Property>
        <Property name="horizontalAlignment" type="int"
value="0"/>
        <Property name="text" type="java.lang.String"
value="0"/>
    </Properties>
</Component>
<Component class="javax.swing.JLabel" name="HealthLabel">
    <Properties>
        <Property name="text" type="java.lang.String"
value="Health Points"/>
    </Properties>
</Component>
</SubComponents>
</Container>
<Component class="javax.swing.JButton" name="EditTaskButton">
    <Properties>
        <Property name="text" type="java.lang.String" value="Edit
Task"/>
        <Property name="toolTipText" type="java.lang.String"
value="Edit task won't give any points."/>
    </Properties>
    <Events>
        <EventHandler event="actionPerformed"
listener="java.awt.event.ActionListener"
parameters="java.awt.event.ActionEvent"
handler="EditTaskButtonActionPerformed"/>
    </Events>

```

```
</Component>
<Component class="javax.swing.JButton" name="AddTaskButton">
    <Properties>
        <Property name="text" type="java.lang.String" value="Add Task"/>
        <Property name="toolTipText" type="java.lang.String" value="Add task to gain points."/>
    </Properties>
    <Events>
        <EventHandler event="actionPerformed"
listener="java.awt.event.ActionListener"
parameters="java.awt.event.ActionEvent"
handler="AddTaskButtonActionPerformed"/>
    </Events>
</Component>
<Component class="javax.swing.JButton"
name="CompleteTaskButton">
    <Properties>
        <Property name="text" type="java.lang.String" value="Complete Task"/>
        <Property name="toolTipText" type="java.lang.String" value="Complete task to gain points based on difficulty."/>
    </Properties>
    <Events>
        <EventHandler event="actionPerformed"
listener="java.awt.event.ActionListener"
parameters="java.awt.event.ActionEvent"
handler="CompleteTaskButtonActionPerformed"/>
    </Events>
</Component>
<Component class="javax.swing.JButton"
name="RemoveTaskButton">
    <Properties>
        <Property name="text" type="java.lang.String" value="Remove Task"/>
        <Property name="toolTipText" type="java.lang.String" value="Remove Task won't give any points."/>
    </Properties>
    <Events>
        <EventHandler event="actionPerformed"
listener="java.awt.event.ActionListener"
parameters="java.awt.event.ActionEvent"
handler="RemoveTaskButtonActionPerformed"/>
    </Events>
</Component>
```

```

        </SubComponents>
    </Container>
    <Component class="javax.swing.JLabel" name="TaskCounter">
        <Properties>
            <Property name="font" type="java.awt.Font"
editor="org.netbeans.beaninfo.editors.FontEditor">
                <Font name="Helvetica Neue" size="18" style="0"/>
            </Property>
            <Property name="horizontalAlignment" type="int" value="0"/>
            <Property name="text" type="java.lang.String" value="0"/>
        </Properties>
    </Component>
    <Container class="javax.swing.JPanel" name="ControlPanel">

        <Layout>
            <DimensionLayout dim="0">
                <Group type="103" groupAlignment="0" attributes="0">
                    <Group type="102" alignment="1" attributes="0">
                        <EmptySpace max="-2" attributes="0"/>
                        <Group type="103" groupAlignment="1" max="-2"
attributes="0">
                            <Component id="PlayButton" pref="92" max="32767"
attributes="0"/>
                            <Component id="FeedButton" alignment="0"
pref="92" max="32767" attributes="0"/>
                            <Component id="ToyButton" alignment="0"
max="32767" attributes="0"/>
                        </Group>
                        <EmptySpace max="32767" attributes="0"/>
                        <Group type="103" groupAlignment="0" attributes="0">
                            <Group type="103" alignment="1"
groupAlignment="0" max="-2" attributes="0">
                                <Component id="HealButton" max="32767"
attributes="0"/>
                                <Component id="AccessorizeButton1"
pref="113" max="32767" attributes="0"/>
                            </Group>
                            <Component id="AvatarButton" alignment="1"
min="-2" pref="113" max="-2" attributes="0"/>
                        </Group>
                        <EmptySpace min="-2" pref="19" max="-2"
attributes="0"/>
                    </Group>
                </Group>
            </DimensionLayout>
        </Layout>
    </Container>

```

```

<DimensionLayout dim="1">
    <Group type="103" groupAlignment="0" attributes="0">
        <Group type="102" alignment="0" attributes="0">
            <EmptySpace min="-2" pref="14" max="-2"
attributes="0"/>
            <Group type="103" groupAlignment="3" attributes="0">
                <Component id="FeedButton" alignment="3"
min="-2" max="-2" attributes="0"/>
                <Component id="HealButton" alignment="3"
min="-2" max="-2" attributes="0"/>
            </Group>
            <EmptySpace type="separate" max="-2"
attributes="0"/>
        <Group type="103" groupAlignment="3" attributes="0">
            <Component id="ToyButton" alignment="3" min="-2"
max="-2" attributes="0"/>
            <Component id="AccessorizeButton1" alignment="3"
min="-2" max="-2" attributes="0"/>
        </Group>
        <EmptySpace type="separate" max="-2"
attributes="0"/>
    <Group type="103" groupAlignment="3" attributes="0">
        <Component id="AvatarButton" alignment="3"
min="-2" max="-2" attributes="0"/>
        <Component id="PlayButton" alignment="3"
min="-2" max="-2" attributes="0"/>
    </Group>
    <EmptySpace pref="24" max="32767" attributes="0"/>
</Group>
</Group>
</DimensionLayout>
</Layout>
<SubComponents>
    <Component class="javax.swing.JButton" name="FeedButton">
        <Properties>
            <Property name="text" type="java.lang.String"
value="Feed"/>
            <Property name="toolTipText" type="java.lang.String"
value="Feed avatar to increase fullness."/>
        </Properties>
        <Events>
            <EventHandler event="actionPerformed"
listener="java.awt.event.ActionListener"
parameters="java.awt.event.ActionEvent"
handler="FeedButtonActionPerformed"/>

```

```
</Events>
</Component>
<Component class="javax.swing.JButton" name="HealButton">
    <Properties>
        <Property name="text" type="java.lang.String"
value="Heal"/>
        <Property name="toolTipText" type="java.lang.String"
value="Heal avatar to increase wellness."/>
    </Properties>
    <Events>
        <EventHandler event="actionPerformed"
listener="java.awt.event.ActionListener"
parameters="java.awt.event.ActionEvent"
handler="HealButtonActionPerformed"/>
    </Events>
</Component>
<Component class="javax.swing.JButton" name="ToyButton">
    <Properties>
        <Property name="text" type="java.lang.String"
value="Toy"/>
        <Property name="toolTipText" type="java.lang.String"
value="Play with avatar to increase happiness."/>
    </Properties>
    <Events>
        <EventHandler event="actionPerformed"
listener="java.awt.event.ActionListener"
parameters="java.awt.event.ActionEvent"
handler="ToyButtonActionPerformed"/>
    </Events>
</Component>
<Component class="javax.swing.JButton"
name="AccessorizeButton1">
    <Properties>
        <Property name="text" type="java.lang.String"
value="Accessorize"/>
        <Property name="toolTipText" type="java.lang.String"
value="Dress you avatar."/>
    </Properties>
    <Events>
        <EventHandler event="actionPerformed"
listener="java.awt.event.ActionListener"
parameters="java.awt.event.ActionEvent"
handler="AccessorizeButton1ActionPerformed"/>
    </Events>
</Component>
```

```

<Component class="javax.swing.JButton" name="AvatarButton">
    <Properties>
        <Property name="text" type="java.lang.String" value="Task
Friend"/>
        <Property name="toolTipText" type="java.lang.String"
value="Change TaskFriend."/>
    </Properties>
    <Events>
        <EventHandler event="actionPerformed"
listener="java.awt.event.ActionListener"
parameters="java.awt.event.ActionEvent"
handler="AvatarButtonActionPerformed"/>
    </Events>
</Component>
<Component class="javax.swing.JButton" name="PlayButton">
    <Properties>
        <Property name="text" type="java.lang.String"
value="Play"/>
        <Property name="toolTipText" type="java.lang.String"
value="Play avatar to increase his happiness and wellness."/>
    </Properties>
    <Events>
        <EventHandler event="actionPerformed"
listener="java.awt.event.ActionListener"
parameters="java.awt.event.ActionEvent"
handler="PlayButtonActionPerformed"/>
    </Events>
</Component>
</SubComponents>
</Container>
</SubComponents>
</Form>

```

//FILE: TaskFriend/src/tamagui/TamaGuiHome.java

```

/*
 * Click
nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt
to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JFrame.java
to edit this template
 */
package tamagui;

import java.awt.Image;

```

```

import java.util.Random;
import javax.swing.ImageIcon;

/*
 * Authors/Contributors in alphabetical order.
 * @author Arpita Sakshee
 * @author Christian Villanueva
 * @author Katrina Mai
 * @author Maya Louise Dagdag
 */
public final class TamaGuiHome extends javax.swing.JFrame {

    private final InteractionScreen interactionScreen; // Declare an
instance of StatScreen
    private static ToDoList todoList;
    private String avatar;
    private String accessory;
    private String health;
    private int points;

    public TamaGuiHome() {
        initComponents();
        this.interactionScreen = new InteractionScreen(this);
        todoList = new ToDoList();
        EditTaskButton.setEnabled(false);
        CompleteTaskButton.setEnabled(false);
        RemoveTaskButton.setEnabled(false);
        this.accessory = "Default";
        this.health = "Healthy";

        this.addTask(new Task("Task 1", "Hard", "11/02/2023", "01:11"));
        this.addTask(new Task("Task 2", "Medium", "11/12/2023",
"12:02"));
        this.addTask(new Task("Task 3", "Easy", "01/01/2024", "23:09"));

        //set up avatar
        String [] avatars = {"Ozzo", "Shey", "Milo", "Petunia",
        "Tee"};
        Random rand = new Random();
        this.avatar = avatars[rand.nextInt(avatars.length)];
        String avatarPath = "Images/Avatar/" + this.health + "/" +
this.accessory + "/" + avatar + ".png";
        this.updateAvatar(avatarPath, this.avatar);
    }
}

```

```
// Lets give 300 starting points
this.points = 300;
PointsCounter.setText(String.valueOf(points));
this.setVisible(true);
}

public void addTask(Task task) {
    todoList.add(task);
    this.ToDoList.setModel(todoList);
    updateTaskCounter();
}

public void removeTask(int index) {
    todoList.remove(index);
    updateTaskCounter();
}

public String getAvatarName() {
    return this.avatar;
}

public int getPoints() {
    return this.points;
}

public void setHealth(String health) {
    this.health = health;
}

public String getHealth() {
    return this.health;
}

public void setAccessory(String accessory) {
    this.accessory = accessory;
}

public String getAccessory() {
    return this.accessory;
}

public void updateAvatar(String avatarImagePath, String
avatarName){
    if (avatarName == null || avatarName.isEmpty()){
        return;
    }
}
```

```

        }
        ImageIcon iconLogo = new ImageIcon(
            new
        ImageIcon(avatarImagePath).getImage().getScaledInstance(100, 150,
        Image.SCALE_DEFAULT));
        Avatar.setIcon(iconLogo);
        AvatarName.setText/avatarName);
        this.avatar = avatarName;
        this.interactionScreen.updateAvatar(avatarImagePath,
        avatarName);
    }

    public void updateTaskCounter() {
        TaskCounter.setText(String.valueOf(
this.ToDoList.getModel().getSize()));
    }

    public void updateFullness(int points) {
        this.interactionScreen.updateFullness(points);
    }

    public void updateWellness(int points) {
        this.interactionScreen.updateWellness(points);
    }

    public void updateHappiness(int points) {
        this.interactionScreen.updateHappiness(points);
    }

    public void updateHealth( int health) {
        HealthBar.setValue(health);
    }

    /**
     * This method is called from within the constructor to initialize
     * the form.
     * WARNING: Do NOT modify this code. The content of this method is
     * always
     * regenerated by the Form Editor.
     */
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated
Code">//GEN-BEGIN:initComponents
    private void initComponents() {

```

```

StatScreenPanel = new javax.swing.JPanel();
ToDoListLabel = new javax.swing.JLabel();
ToDoListPanel = new javax.swing.JScrollPane();
ToDoList = new javax.swing.JList<>();
AvatarPanel = new javax.swing.JPanel();
InteractionPanel = new javax.swing.JPanel();
Avatar = new javax.swing.JLabel();
AvatarName = new javax.swing.JLabel();
PointsLabel = new javax.swing.JLabel();
HealthBar = new javax.swing.JProgressBar();
PointsCounter = new javax.swing.JLabel();
HealthLabel = new javax.swing.JLabel();
EditTaskButton = new javax.swing.JButton();
AddTaskButton = new javax.swing.JButton();
CompleteTaskButton = new javax.swing.JButton();
RemoveTaskButton = new javax.swing.JButton();
TaskCounter = new javax.swing.JLabel();
ControlPanel = new javax.swing.JPanel();
FeedButton = new javax.swing.JButton();
HealButton = new javax.swing.JButton();
ToyButton = new javax.swing.JButton();
AccessorizeButton1 = new javax.swing.JButton();
AvatarButton = new javax.swing.JButton();
PlayButton = new javax.swing.JButton();

javax.swing.GroupLayout StatScreenPanelLayout = new
javax.swing.GroupLayout(StatScreenPanel);
StatScreenPanel.setLayout(StatScreenPanelLayout);
StatScreenPanelLayout.setHorizontalGroup(
StatScreenPanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addGap(0, 0, Short.MAX_VALUE)
);
StatScreenPanelLayout.setVerticalGroup(
StatScreenPanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addGap(0, 213, Short.MAX_VALUE)
);

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
setTitle("TaskFriend");
addMouseListener(new java.awt.event.MouseAdapter() {

```

```

        public void mouseClicked(java.awt.event.MouseEvent evt) {
            formMouseClicked(evt);
        }
    });

    ToDoListLabel.setFont(new java.awt.Font("Helvetica Neue", 1,
18)); // NOI18N
    ToDoListLabel.setText("To-Do List");

    ToDoList.setModel(new javax.swing.AbstractListModel<String>()
{
    String[] strings = {};
    public int getSize() { return strings.length; }
    public String getElementAt(int i) { return strings[i]; }
});
    ToDoList.addListSelectionListener(new
javax.swing.event.ListSelectionListener() {
    public void
valueChanged(javax.swing.event.ListSelectionEvent evt) {
        ToDoListValueChanged(evt);
    }
});
    ToDoListPanel.setViewportView(ToDoList);

    AvatarPanel.setBackground(new java.awt.Color(204, 204, 204));

    AvatarPanel.setBorder(javax.swing.BorderFactory.createLineBorder(new
java.awt.Color(0, 0, 0)));
}

InteractionPanel.setBackground(new java.awt.Color(255, 255,
255));

InteractionPanel.setBorder(javax.swing.BorderFactory.createLineBorder(
new java.awt.Color(0, 0, 0)));
    InteractionPanel.addMouseListener(new
java.awt.event.MouseAdapter() {
        public void mouseClicked(java.awt.event.MouseEvent evt) {
            InteractionPanelMouseClicked(evt);
        }
});
    Avatar.setBackground(new java.awt.Color(255, 255, 255));

Avatar.setHorizontalAlignment(javax.swing.SwingConstants.RIGHT);

```

```

        AvatarName.setText("Avatar Name");
        AvatarName.addMouseListener(new java.awt.event.MouseAdapter()
{
    public void mouseClicked(java.awt.event.MouseEvent evt) {
        AvatarNameMouseClicked(evt);
    }
});

        PointsLabel.setFont(new java.awt.Font("Helvetica Neue", 0,
14)); // NOI18N
        PointsLabel.setText("Points");

        HealthBar.setStringPainted(true);

        PointsCounter.setFont(new java.awt.Font("Helvetica Neue", 1,
32)); // NOI18N

        PointsCounter.setHorizontalAlignment(javax.swing.SwingConstants.CENTER);
        PointsCounter.setText("0");

        HealthLabel.setText("Health Points");

        javax.swing.GroupLayout InteractionPanelLayout = new
javax.swing.GroupLayout(InteractionPanel);
        InteractionPanel.setLayout(InteractionPanelLayout);
        InteractionPanelLayout.setHorizontalGroup(
            InteractionPanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(InteractionPanelLayout.createSequentialGroup()
                    .addGap(0, 0, 0)
                    .addComponent(HealthBar,
                    javax.swing.GroupLayout.Alignment.TRAILING.BASELINE,
                    javax.swing.GroupLayout.DEFAULT_SIZE,
                    javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
                .addGroup(InteractionPanelLayout.createSequentialGroup()
                    .addGap(0, 0, 0)
                    .addGroup(InteractionPanelLayout.createParallelGroup()
                        .addGroup(InteractionPanelLayout.createSequentialGroup()
                            .addGap(0, 0, 0)
                            .addComponent(PointsLabel,
                            javax.swing.GroupLayout.Alignment.TRAILING.BASELINE,
                            javax.swing.GroupLayout.DEFAULT_SIZE,
                            javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
                        .addGroup(InteractionPanelLayout.createSequentialGroup()
                            .addGap(0, 0, 0)
                            .addComponent(PointsCounter,
                            javax.swing.GroupLayout.Alignment.TRAILING.BASELINE,
                            javax.swing.GroupLayout.DEFAULT_SIZE,
                            javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)))
                    .addGap(0, 0, 0)
                    .addComponent(HealthLabel,
                    javax.swing.GroupLayout.Alignment.TRAILING.BASELINE,
                    javax.swing.GroupLayout.DEFAULT_SIZE,
                    javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)))
        );

```

```
.addGroup(InteractionPanelLayout.createSequentialGroup()

    .addGroup(InteractionPanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addComponent(AvatarName)

        .addGroup(InteractionPanelLayout.createSequentialGroup()
                    .addGap(12, 12, 12)
                    .addComponent(Avatar,
javax.swing.GroupLayout.PREFERRED_SIZE, 143,
javax.swing.GroupLayout.PREFERRED_SIZE)))

    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

    .addGroup(InteractionPanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                .addComponent(PointsLabel,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addComponent(PointsCounter,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)))

    .addGroup(InteractionPanelLayout.createSequentialGroup()
                    .addGap(49, 49, 49)
                    .addComponent(HealthLabel)))
    .addGap(0, 4, Short.MAX_VALUE)))
    .addContainerGap())
);

InteractionPanelLayout.setVerticalGroup(
    InteractionPanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(InteractionPanelLayout.createSequentialGroup()
                    .addContainerGap())

    .addGroup(InteractionPanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                .addGroup(InteractionPanelLayout.createSequentialGroup()
                    .addComponent(PointsCounter,
javax.swing.GroupLayout.PREFERRED_SIZE, 32,
javax.swing.GroupLayout.PREFERRED_SIZE)
```

```
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
    .addComponent(PointsLabel)
    .addGap(110, 110, 110))

.addGroup(InteractionPanelLayout.createSequentialGroup()
    .addComponent(AvatarName)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
    .addComponent(Avatar,
javax.swing.GroupLayout.PREFERRED_SIZE, 131,
javax.swing.GroupLayout.PREFERRED_SIZE)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)))
    .addComponent(HealthLabel)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
    .addComponent(HealthBar,
javax.swing.GroupLayout.DEFAULT_SIZE, 23, Short.MAX_VALUE)
    .addContainerGap())
);

EditTaskButton.setText("Edit Task");
EditTaskButton.setToolTipText("Edit task won't give any
points.");
EditTaskButton.addActionListener(new
java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent
evt) {
        EditTaskButtonActionPerformed(evt);
    }
});

AddTaskButton.setText("Add Task");
AddTaskButton.setToolTipText("Add task to gain points.");
AddTaskButton.addActionListener(new
java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent
evt) {
        AddTaskButtonActionPerformed(evt);
    }
});

CompleteTaskButton.setText("Complete Task");
```

```
        CompleteTaskButton.setToolTipText("Complete task to gain  
points based on difficulty.");  
        CompleteTaskButton.addActionListener(new  
java.awt.event.ActionListener() {  
            public void actionPerformed(java.awt.event.ActionEvent  
evt) {  
                CompleteTaskButtonActionPerformed(evt);  
            }  
        });  
  
        RemoveTaskButton.setText("Remove Task");  
        RemoveTaskButton.setToolTipText("Remove Task won't give any  
points.");  
        RemoveTaskButton.addActionListener(new  
java.awt.event.ActionListener() {  
            public void actionPerformed(java.awt.event.ActionEvent  
evt) {  
                RemoveTaskButtonActionPerformed(evt);  
            }  
        });  
  
        javax.swing.GroupLayout AvatarPanelLayout = new  
javax.swing.GroupLayout(AvatarPanel);  
        AvatarPanel.setLayout(AvatarPanelLayout);  
        AvatarPanelLayout.setHorizontalGroup(  
  
AvatarPanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.  
LEADING)  
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,  
AvatarPanelLayout.createSequentialGroup()  
  
.addGroup(AvatarPanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.  
TRAILING)  
  
.addGroup(AvatarPanelLayout.createSequentialGroup()  
  
.addComponent(InteractionPanel,  
javax.swing.GroupLayout.PREFERRED_SIZE,  
javax.swing.GroupLayout.DEFAULT_SIZE,  
javax.swing.GroupLayout.PREFERRED_SIZE))  
  
.addGroup(AvatarPanelLayout.createSequentialGroup()  
        .addGap(13, 13, 13)
```

```
.addGroup(AvatarPanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
    .addComponent(AddTaskButton)
    .addComponent(EditTaskButton))
    .addGap(18, 18, 18)

.addGroup(AvatarPanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addComponent(CompleteTaskButton,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
    .addComponent(RemoveTaskButton,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)))
    .addGap(122, 122, 122))
);

AvatarPanelLayout.setVerticalGroup(
AvatarPanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(AvatarPanelLayout.createSequentialGroup()
        .addGap(26, 26, 26)
        .addComponent(InteractionPanel,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
    )

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addGroup(AvatarPanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
    .addComponent(AddTaskButton)
    .addComponent(RemoveTaskButton))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addGroup(AvatarPanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
    .addComponent(EditTaskButton)
    .addComponent(CompleteTaskButton))
    .addContainerGap(14, Short.MAX_VALUE))
);

});
```

```
        TaskCounter.setFont(new java.awt.Font("Helvetica Neue", 0,
18)); // NOI18N

TaskCounter.setHorizontalAlignment(javax.swing.SwingConstants.CENTER);
        TaskCounter.setText("0");

        FeedButton.setText("Feed");
        FeedButton.setToolTipText("Feed avatar to increase
fullness.");
        FeedButton.addActionListener(new
java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent
evt) {
                FeedButtonActionPerformed(evt);
            }
        });

        HealButton.setText("Heal");
        HealButton.setToolTipText("Heal avatar to increase
wellness.");
        HealButton.addActionListener(new
java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent
evt) {
                HealButtonActionPerformed(evt);
            }
        });

        ToyButton.setText("Toy");
        ToyButton.setToolTipText("Play with avatar to increase
happiness.");
        ToyButton.addActionListener(new
java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent
evt) {
                ToyButtonActionPerformed(evt);
            }
        });

        AccessorizeButton1.setText("Accessorize");
        AccessorizeButton1.setToolTipText("Dress you avatar.");
        AccessorizeButton1.addActionListener(new
java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent
evt) {
```

```

        AccessorizeButton1ActionPerformed(evt);
    }
});

AvatarButton.setText("Task Friend");
AvatarButton.setToolTipText("Change TaskFriend.");
AvatarButton.addActionListener(new
java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent
evt) {
        AvatarButtonActionPerformed(evt);
    }
});

PlayButton.setText("Play");
PlayButton.setToolTipText("Play avatar to increase his
happiness and wellness.");
PlayButton.addActionListener(new
java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent
evt) {
        PlayButtonActionPerformed(evt);
    }
});

javax.swing.GroupLayout ControlPanelLayout = new
javax.swing.GroupLayout(ControlPanel);
ControlPanel.setLayout(ControlPanelLayout);
ControlPanelLayout.setHorizontalGroup(
ControlPanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment)
    .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
ControlPanelLayout.createSequentialGroup()
        .addContainerGap()

.addGroup(ControlPanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING, false)
        .addComponent(PlayButton,
javax.swing.GroupLayout.DEFAULT_SIZE, 92, Short.MAX_VALUE)
        .addComponent(FeedButton,
javax.swing.GroupLayout.Alignment.LEADING,
javax.swing.GroupLayout.DEFAULT_SIZE, 92, Short.MAX_VALUE)
        .addComponent(ToyButton,
javax.swing.GroupLayout.Alignment.LEADING,

```

```
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)

.addGroup(ControlPanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
ControlPanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
        .addComponent(HealButton,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
        .addComponent(AccessorizeButton1,
javax.swing.GroupLayout.DEFAULT_SIZE, 113, Short.MAX_VALUE))
        .addComponent(AvatarButton,
javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.PREFERRED_SIZE, 113,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(19, 19, 19))
);

ControlPanelLayout.setVerticalGroup(
ControlPanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(ControlPanelLayout.createSequentialGroup()
        .addGap(14, 14, 14)

.addGroup(ControlPanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
        .addComponent(FeedButton)
        .addComponent(HealButton))
        .addGap(18, 18, 18)

.addGroup(ControlPanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
        .addComponent(ToyButton)
        .addComponent(AccessorizeButton1))
        .addGap(18, 18, 18)

.addGroup(ControlPanelLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
        .addComponent(AvatarButton)
```

```

        .addComponent(PlayButton))
    .addContainerGap(24, Short.MAX_VALUE))
);

    javax.swing.GroupLayout layout = new
javax.swing.GroupLayout(getContentPane());
    getContentPane().setLayout(layout);
    layout.setHorizontalGroup(
layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING,
false)
        .addGroup(layout.createSequentialGroup()
            .addGroup(layout.createParallelGroup()
                .addGroup(layout.createSequentialGroup()
                    .addGap(21, 21, 21)
                    .addComponent(ToDoListLabel)
                )
                .addGap(20, 20, 20)
                .addComponent(ToDoListPanel,
                    javax.swing.GroupLayout.PREFERRED_SIZE, 289,
                    javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(18, 18, 18)
        )
        .addGroup(layout.createSequentialGroup()
            .addComponent(AvatarPanel,
                javax.swing.GroupLayout.PREFERRED_SIZE, 255,
                javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(ControlPanel,
                javax.swing.GroupLayout.DEFAULT_SIZE,
                javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
        .addGap(ContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE)))
    );
    layout.setVerticalGroup(
layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

```

```

        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
        .addContainerGap()

        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(ToDoListLabel)
                .addComponent(TaskCounter))

        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(layout.createSequentialGroup()
                        .addComponent(ToDoListPanel)
                        .addGap(20, 20, 20))
                .addGroup(layout.createSequentialGroup()
                        .addComponent(AvatarPanel,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addGap(18, 18, 18)
                        .addComponent(ControlPanel,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addContainerGap(17, Short.MAX_VALUE))))))

    );

    pack();
}// </editor-fold>//GEN-END:initComponents

```

```

private void
InteractionPanelMouseClicked(java.awt.event.MouseEvent evt)
{//GEN-FIRST:event_InteractionPanelMouseClicked
    this.interactionScreen.setVisible(true);
}//GEN-LAST:event_InteractionPanelMouseClicked

private void
AddTaskButtonActionPerformed(java.awt.event.ActionEvent evt)
{//GEN-FIRST:event_AddTaskButtonActionPerformed
    addTask AddTask = new addTask(this);
    AddTask.setVisible(true);
}

```

```

}//GEN-LAST:event_AddTaskButtonActionPerformed

    private void
CompleteTaskButtonActionPerformed(java.awt.event.ActionEvent evt)
{//GEN-FIRST:event_CompleteTaskButtonActionPerformed
    int SelectedIndex = this.ToDoList.getSelectedIndex();
    String task =
this.ToDoList.getModel().getElementAt(SelectedIndex);
    System.out.println("Removing Completed Task: "+ task);
    this.removeTask(SelectedIndex);
    String []tasks= task.split("-");
    String difficulty = tasks[1].trim();
    int pointsAdded;
    pointsAdded = switch (difficulty) {
        case "Easy" -> 3;
        case "Medium" -> 5;
        default -> 7;
    };
    this.addPoints(pointsAdded);
    Error error = new Error();
    error.SetErrorMsg("Task removed.Points gained: "
+pointsAdded);
    error.setVisible(true);
}//GEN-LAST:event_CompleteTaskButtonActionPerformed

    private void
EditTaskButtonActionPerformed(java.awt.event.ActionEvent evt)
{//GEN-FIRST:event_EditTaskButtonActionPerformed
    int SelectedIndex = this.ToDoList.getSelectedIndex();
    String task =
this.ToDoList.getModel().getElementAt(SelectedIndex);
    System.out.println("Editing Task: "+ task);
    String []tasks= task.split("-");
    this.removeTask(SelectedIndex);
    addTask AddTask = new addTask(this,
tasks[0].trim(),tasks[1].trim(), tasks[2].trim(),tasks[3].trim());
    AddTask.setVisible(true);
}//GEN-LAST:event>EditTaskButtonActionPerformed

    private void
ToDoListValueChanged(javax.swing.event.ListSelectionEvent evt)
{//GEN-FIRST:event_ToDoListValueChanged
    if (evt.getValueIsAdjusting() == false) {
        if (ToDoList.getSelectedIndex() == -1) {
            //No selection, disable buttons

```

```

        EditTaskButton.setEnabled(false);
        CompleteTaskButton.setEnabled(false);
        RemoveTaskButton.setEnabled(false);
    } else {
        //Selection, enable buttons
        EditTaskButton.setEnabled(true);
        CompleteTaskButton.setEnabled(true);
        RemoveTaskButton.setEnabled(true);
    }
}
}//GEN-LAST:event_ToDoListValueChanged

private void formMouseClicked(java.awt.event.MouseEvent evt)
{//GEN-FIRST:event_formMouseClicked
    ToDoList.clearSelection();
}//GEN-LAST:event_formMouseClicked

private void
RemoveTaskButtonActionPerformed(java.awt.event.ActionEvent evt)
{//GEN-FIRST:event_RemoveTaskButtonActionPerformed
    int SelectedIndex = this.ToDoList.getSelectedIndex();
    String task =
this.ToDoList.getModel().getElementAt(SelectedIndex);
    System.out.println("Removing Task: "+ task);
    this.removeTask(SelectedIndex);
}//GEN-LAST:event_RemoveTaskButtonActionPerformed

private void FeedButtonActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:event_FeedButtonActionPerformed
    new InventoryFood(this).setVisible(true);
}//GEN-LAST:event_FeedButtonActionPerformed

private void
AccessorizeButton1ActionPerformed(java.awt.event.ActionEvent evt)
{//GEN-FIRST:event_AccessorizeButton1ActionPerformed
    new InventoryAccessory(this).setVisible(true);
}//GEN-LAST:event_AccessorizeButton1ActionPerformed

private void ToyButtonActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:event_ToyButtonActionPerformed
    new InventoryToy(this).setVisible(true);
}//GEN-LAST:event_ToyButtonActionPerformed

private void HealButtonActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:event_HealButtonActionPerformed

```

```

        new InventoryHeal(this).setVisible(true);
    }//GEN-LAST:event_HealButtonActionPerformed

    private void
AvatarButtonActionPerformed(java.awt.event.ActionEvent evt)
{//GEN-FIRST:event_AvatarButtonActionPerformed
    new InventoryAvatar(this).setVisible(true);
}//GEN-LAST:event_AvatarButtonActionPerformed

    private void PlayButtonActionPerformed(java.awt.event.ActionEvent
evt) {//GEN-FIRST:event_PlayButtonActionPerformed
    new Play(this).setVisible(true);
}//GEN-LAST:event_PlayButtonActionPerformed

    private void AvatarNameMouseClicked(java.awt.event.MouseEvent evt)
{//GEN-FIRST:event_AvatarNameMouseClicked
    // TODO add your handling code here:
}//GEN-LAST:event_AvatarNameMouseClicked

public void addPoints(int points) {
    //OverFlow
    if (this.points + points > 1000){
        this.points = 1000;
    }else if (this.points + points <= 0) {
        // underflow
        this.points = 0;
    }else {
        this.points += points;
    }
    PointsCounter.setText(String.valueOf(this.points));
}

public static void main(String args[]) {
    /* Set the Nimbus look and feel */
    //<editor-fold defaultstate="collapsed" desc=" Look and feel
setting code (optional) ">
    /* If Nimbus (introduced in Java SE 6) is not available, stay
with the default look and feel.
     * For details see
http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
    */
    try {
        for (javax.swing.UIManager.LookAndFeelInfo info :
javax.swing.UIManager.getInstalledLookAndFeels()) {

```

```
        if ("Nimbus".equals(info.getName())) {  
  
    javax.swing.UIManager.setLookAndFeel(info.getClassName());  
        break;  
    }  
}  
} catch (ClassNotFoundException ex) {  
  
java.util.logging.Logger.getLogger(TamaGuiHome.class.getName()).log(ja  
va.util.logging.Level.SEVERE, null, ex);  
} catch (InstantiationException ex) {  
  
java.util.logging.Logger.getLogger(TamaGuiHome.class.getName()).log(ja  
va.util.logging.Level.SEVERE, null, ex);  
} catch (IllegalAccessException ex) {  
  
java.util.logging.Logger.getLogger(TamaGuiHome.class.getName()).log(ja  
va.util.logging.Level.SEVERE, null, ex);  
} catch (javax.swing.UnsupportedLookAndFeelException ex) {  
  
java.util.logging.Logger.getLogger(TamaGuiHome.class.getName()).log(ja  
va.util.logging.Level.SEVERE, null, ex);  
}  
}  
  
//</editor-fold>  
/* Create and display the form */  
java.awt.EventQueue.invokeLater(() -> {  
    new TamaGuiHome();  
});  
}  
  
// Variables declaration - do not modify//GEN-BEGIN:variables  
private javax.swing.JButton AccessorizeButton1;  
private javax.swing.JButton AddTaskButton;  
private javax.swing.JLabel Avatar;  
private javax.swing.JButton AvatarButton;  
private javax.swing.JLabel AvatarName;  
private javax.swing.JPanel AvatarPanel;  
private javax.swing.JButton CompleteTaskButton;  
private javax.swing.JPanel ControlPanel;  
private javax.swing.JButton EditTaskButton;  
private javax.swing.JButton FeedButton;  
private javax.swing.JButton HealButton;  
private javax.swing.JProgressBar HealthBar;  
private javax.swing.JLabel HealthLabel;
```

```

    private javax.swing.JPanel InteractionPanel;
    private javax.swing.JButton PlayButton;
    private javax.swing.JLabel PointsCounter;
    private javax.swing.JLabel PointsLabel;
    private javax.swing.JButton RemoveTaskButton;
    private javax.swing.JPanel StatScreenPanel;
    private javax.swing.JLabel TaskCounter;
    private javax.swing.JList<String> ToDoList;
    private javax.swing.JLabel ToDoListLabel;
    private javax.swing.JScrollPane ToDoListPanel;
    private javax.swing.JButton ToyButton;
    // End of variables declaration//GEN-END:variables
}

//FILE: TaskFriend/src/tamogui/Task.java

```

```

/*
 * Click
nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt
to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java
to edit this template
 */
package tamogui;

/**
 * Authors/Contributors in alphabetical order.
 * @author Arpita Sakshee
 * @author Christian Villanueva
 * @author Katrina Mai
 * @author Maya Louise Dagdag
 */
public class Task {
    private final String taskName;
    private final String difficulty;
    private final String dueDate;
    private final String dueTime;
    /**
     * @param taskname
     * @param difficulty
     * @param dueDate
     * @param dueTime
     */
    public Task(String taskname, String difficulty, String dueDate,
String dueTime) {

```

```

        this.taskName = taskname;
        this.difficulty = difficulty;
        this.dueDate = dueDate;
        this.dueTime = dueTime;
    }

    public String getTaskName(){
        return this.taskName;
    }

    public String getDifficulty(){
        return this.difficulty;
    }

    public String getDueDate(){
        return this.dueDate;
    }

    public String getDueTime(){
        return this.dueTime;
    }

    public String toString(int index) {

        return this.getTaskName() + " - " + this.getDifficulty() + " -
"+ this.getDueDate() + " - " + this.getDueTime();
    }
}

```

//FILE: TaskFriend/src/tamagui/ToDoList.java

```

/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt
to change this license
* Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java
to edit this template
*/
package tamagui;

import java.util.ArrayList;
import javax.swing.AbstractListModel;

/**
 * Authors/Contributors in alphabetical order.

```

```
* @author Arpita Sakshee
* @author Christian Villanueva
* @author Katrina Mai
* @author Maya Louise Dagdag
*/
public class ToDoList extends AbstractListModel<String> {

    ArrayList<Task> list = new ArrayList<>();

    @Override
    public int getSize() {
        return list.size();
    }

    @Override
    public String getElementAt(int index) {
        Task task = list.get(index);
        return task.getTaskName() + " - " + task.getDifficulty() + " - "
               + task.getDueDate() + " - " + task.getDueTime();

    }

    public Task getTaskAt(int index) {

        return list.get(index);
    }

    public void add(Task task) {
        list.add(task);
        fireIntervalAdded(this, list.size() - 1, list.size() - 1);
    }

    public void remove(int index) {
        list.remove(index);
        fireIntervalRemoved(this, index, index);
    }

    public boolean isEmpty() {
        boolean empty = false;
        if (this.getSize() == 0) {
            empty = true;
        }
        return empty;
    }
}
```

}

//FILE: TaskFriend/src/tamagui/addTask.form

```
<?xml version="1.0" encoding="UTF-8" ?>

<Form version="1.3" maxVersion="1.9"
type="org.netbeans.modules.form.forminfo.JFrameFormInfo">
    <NonVisualComponents>
        <Component class="javax.swing.ButtonGroup" name="Difficulty">
            </Component>
    </NonVisualComponents>
    <Properties>
        <Property name="defaultCloseOperation" type="int" value="2"/>
    </Properties>
    <SyntheticProperties>
        <SyntheticProperty name="formSizePolicy" type="int" value="1"/>
        <SyntheticProperty name="generateCenter" type="boolean"
value="false"/>
    </SyntheticProperties>
    <AuxValues>
        <AuxValue name="FormSettings_autoResourcing"
type="java.lang.Integer" value="0"/>
        <AuxValue name="FormSettings_autoSetComponentName"
type="java.lang.Boolean" value="false"/>
        <AuxValue name="FormSettings_generateFQN" type="java.lang.Boolean"
value="true"/>
        <AuxValue name="FormSettings_generateMnemonicsCode"
type="java.lang.Boolean" value="false"/>
        <AuxValue name="FormSettings_i18nAutoMode"
type="java.lang.Boolean" value="false"/>
        <AuxValue name="FormSettings_layoutCodeTarget"
type="java.lang.Integer" value="1"/>
        <AuxValue name="FormSettings_listenerGenerationStyle"
type="java.lang.Integer" value="0"/>
        <AuxValue name="FormSettings_variablesLocal"
type="java.lang.Boolean" value="false"/>
        <AuxValue name="FormSettings_variablesModifier"
type="java.lang.Integer" value="2"/>
    </AuxValues>

    <Layout>
        <DimensionLayout dim="0">
            <Group type="103" groupAlignment="0" attributes="0">
                <Group type="102" attributes="0">
```

```
<Group type="103" groupAlignment="0" attributes="0">
    <Group type="102" attributes="0">
        <EmptySpace min="18" pref="18" max="-2"
attributes="0"/>
        <Group type="103" groupAlignment="0"
attributes="0">
            <Component id="Medium" alignment="0"
min="-2" max="-2" attributes="0"/>
            <Component id="Hard" alignment="0" min="-2"
max="-2" attributes="0"/>
            <Component id="Easy" alignment="0" min="-2"
max="-2" attributes="0"/>
            <Component id="TaskDifficultyLabel"
alignment="0" min="-2" max="-2" attributes="0"/>
            <Component id="TaskNameLabel" alignment="0"
min="-2" pref="121" max="-2" attributes="0"/>
            <Component id="jScrollPane1" alignment="0"
min="-2" pref="249" max="-2" attributes="0"/>
            <Component id="CompleteByLabel"
alignment="0" min="-2" max="-2" attributes="0"/>
            <Group type="103" alignment="0"
groupAlignment="1" attributes="0">
                <Group type="102" alignment="1"
attributes="0">
                    <Component id="DueDateLabel"
min="-2" max="-2" attributes="0"/>
                    <EmptySpace max="-2"
attributes="0"/>
                    <Component id="jScrollPane3"
min="-2" pref="125" max="-2" attributes="0"/>
                </Group>
                <Group type="102" alignment="0"
attributes="0">
                    <Component id="DueTimeLabel"
min="-2" max="-2" attributes="0"/>
                    <EmptySpace min="-2" pref="39"
max="-2" attributes="0"/>
                    <Component id="jScrollPane2"
min="-2" pref="125" max="-2" attributes="0"/>
                </Group>
                </Group>
            </Group>
            <Group type="102" attributes="0">
                <EmptySpace max="32767" attributes="0"/>
```

```

<Group type="103" groupAlignment="0"
attributes="0">
    <Component id="AddTaskLabel" alignment="0"
min="-2" max="-2" attributes="0"/>
    <Component id="Done" alignment="0" min="-2"
max="-2" attributes="0"/>
</Group>
</Group>
</Group>
<EmptySpace max="32767" attributes="0"/>
</Group>
</Group>
</DimensionLayout>
<DimensionLayout dim="1">
    <Group type="103" groupAlignment="0" attributes="0">
        <Group type="102" alignment="0" attributes="0">
            <EmptySpace min="-2" pref="20" max="-2" attributes="0"/>
            <Component id="AddTaskLabel" min="-2" max="-2"
attributes="0"/>
            <EmptySpace type="unrelated" max="-2" attributes="0"/>
            <Component id="TaskNameLabel" min="-2" pref="20"
max="-2" attributes="0"/>
            <EmptySpace max="-2" attributes="0"/>
            <Component id="jScrollPane1" min="-2" max="-2"
attributes="0"/>
            <EmptySpace type="separate" max="-2" attributes="0"/>
            <Component id="TaskDifficultyLabel" min="-2" max="-2"
attributes="0"/>
            <EmptySpace max="-2" attributes="0"/>
            <Component id="Easy" min="-2" max="-2" attributes="0"/>
            <EmptySpace max="-2" attributes="0"/>
            <Component id="Medium" min="-2" max="-2"
attributes="0"/>
            <EmptySpace max="-2" attributes="0"/>
            <Component id="Hard" min="-2" max="-2" attributes="0"/>
            <EmptySpace type="separate" max="-2" attributes="0"/>
            <Component id="CompleteByLabel" min="-2" max="-2"
attributes="0"/>
            <EmptySpace max="-2" attributes="0"/>
        <Group type="103" groupAlignment="0" attributes="0">
            <Component id="DueDateLabel" alignment="0" min="-2"
pref="23" max="-2" attributes="0"/>
            <Component id="jScrollPane3" min="-2" max="-2"
attributes="0"/>
        </Group>
    </Group>

```

```

        <EmptySpace max="-2" attributes="0"/>
        <Group type="103" groupAlignment="0" attributes="0">
            <Component id="DueTimeLabel" alignment="0" min="-2"
pref="23" max="-2" attributes="0"/>
            <Component id="jScrollPane2" alignment="0" min="-2"
max="-2" attributes="0"/>
        </Group>
        <EmptySpace type="separate" max="32767" attributes="0"/>
        <Component id="Done" min="-2" max="-2" attributes="0"/>
        <EmptySpace min="-2" pref="20" max="-2" attributes="0"/>
    </Group>
</Group>
</DimensionLayout>
</Layout>
<SubComponents>
<Container class="javax.swing.JScrollPane" name="jScrollPane1">
    <AuxValues>
        <AuxValue name="autoScrollPane" type="java.lang.Boolean"
value="true"/>
    </AuxValues>

    <Layout
class="org.netbeans.modules.form.compat2.layouts.support.JScrollPaneSu
pportLayout"/>
    <SubComponents>
        <Component class="javax.swing.JTextPane" name="TaskName">
            <AuxValues>
                <AuxValue name="JavaCodeGenerator_CreateCodeCustom"
type="java.lang.String" value="new javax.swing.JTextPane()"/>
            </AuxValues>
        </Component>
    </SubComponents>
</Container>
<Container class="javax.swing.JScrollPane" name="jScrollPane3">
    <AuxValues>
        <AuxValue name="autoScrollPane" type="java.lang.Boolean"
value="true"/>
    </AuxValues>

    <Layout
class="org.netbeans.modules.form.compat2.layouts.support.JScrollPaneSu
pportLayout"/>
    <SubComponents>
        <Component class="javax.swing.JTextPane" name="dueDateField">
    </Component>

```

```

        </SubComponents>
    </Container>
    <Container class="javax.swing.JScrollPane" name="jScrollPane2">
        <AuxValues>
            <AuxValue name="autoScrollPane" type="java.lang.Boolean"
value="true"/>
        </AuxValues>

        <Layout
class="org.netbeans.modules.form.compat2.layouts.support.JPanelSupportLayout"/>
        <SubComponents>
            <Component class="javax.swing.JTextPane" name="dueTimeField">
                </Component>
            </SubComponents>
        </Container>
        <Component class="javax.swing.JLabel" name="AddTaskLabel">
            <Properties>
                <Property name="font" type="java.awt.Font"
editor="org.netbeans.beaninfo.editors.FontEditor">
                    <Font name="Helvetica Neue" size="20" style="0"/>
                </Property>
                <Property name="text" type="java.lang.String" value="Add
Task"/>
            </Properties>
        </Component>
        <Component class="javax.swing.JLabel" name="DueTimeLabel">
            <Properties>
                <Property name="text" type="java.lang.String" value="Due Time
(hh:mm) :"/>
            </Properties>
        </Component>
        <Component class="javax.swing.JLabel" name="TaskDifficultyLabel">
            <Properties>
                <Property name="font" type="java.awt.Font"
editor="org.netbeans.beaninfo.editors.FontEditor">
                    <Font name="Helvetica Neue" size="15" style="0"/>
                </Property>
                <Property name="text" type="java.lang.String" value="Choose
Task Difficulty"/>
            </Properties>
        </Component>
        <Component class="javax.swing.JLabel" name="CompleteByLabel">
            <Properties>

```

```

        <Property name="font" type="java.awt.Font"
editor="org.netbeans.beaninfo.editors.FontEditor">
            <Font name="Helvetica Neue" size="15" style="0"/>
        </Property>
        <Property name="text" type="java.lang.String" value="Complete
By:"/>
    </Properties>
</Component>
<Component class="javax.swing.JCheckBox" name="Easy">
    <Properties>
        <Property name="buttonGroup" type="javax.swing.ButtonGroup"
editor="org.netbeans.modules.form.RADComponent$ButtonGroupPropertyEdit
or">
            <ComponentRef name="Difficulty"/>
        </Property>
        <Property name="text" type="java.lang.String" value="Easy"/>
    </Properties>
</Component>
<Component class="javax.swing.JCheckBox" name="Medium">
    <Properties>
        <Property name="buttonGroup" type="javax.swing.ButtonGroup"
editor="org.netbeans.modules.form.RADComponent$ButtonGroupPropertyEdit
or">
            <ComponentRef name="Difficulty"/>
        </Property>
        <Property name="text" type="java.lang.String" value="Medium"/>
    </Properties>
</Component>
<Component class="javax.swing.JCheckBox" name="Hard">
    <Properties>
        <Property name="buttonGroup" type="javax.swing.ButtonGroup"
editor="org.netbeans.modules.form.RADComponent$ButtonGroupPropertyEdit
or">
            <ComponentRef name="Difficulty"/>
        </Property>
        <Property name="text" type="java.lang.String" value="Hard"/>
    </Properties>
</Component>
<Component class="javax.swing.JButton" name="Done">
    <Properties>
        <Property name="text" type="java.lang.String" value="Done"/>
    </Properties>
    <Events>
        <EventHandler event="actionPerformed"
listener="java.awt.event.ActionListener"

```

```

parameters="java.awt.event.ActionEvent"
handler="DoneActionPerformed"/>
    </Events>
</Component>
<Component class="javax.swing.JLabel" name="TaskNameLabel">
    <Properties>
        <Property name="font" type="java.awt.Font"
editor="org.netbeans.beaninfo.editors.FontEditor">
            <Font name="Helvetica Neue" size="15" style="0"/>
        </Property>
        <Property name="text" type="java.lang.String" value="Task
Name"/>
    </Properties>
</Component>
<Component class="javax.swing.JLabel" name="DueDateLabel">
    <Properties>
        <Property name="text" type="java.lang.String" value="Due Date
(mm/dd/yyyy) :"/>
    </Properties>
</Component>
</SubComponents>
</Form>

```

//FILE: TaskFriend/src/tamagui/addTask.java

```

/*
 * Click
nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt
to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JFrame.java
to edit this template
 */
package tamagui;

import java.text.SimpleDateFormat;
import java.util.Date;
import java.util.Enumeration;
import javax.swing.AbstractButton;

/**
 * Authors/Contributors in alphabetical order.
 * @author Arpita Sakshee
 * @author Christian Villanueva
 * @author Katrina Mai

```

```

* @author Maya Louise Dagdag
*/
public class addTask extends javax.swing.JFrame {
    private String taskName;
    private String difficulty;
    private String dueDate;
    private String dueTime;
    private final Error error;
    private TamaGuiHome home;
    private boolean isEditTask;

    /**
     * Creates new form addTask
     * @param tamaGuiHome
     */
    public addTask(TamaGuiHome tamaGuiHome) {
        initComponents();
        error = new Error();
        home = tamaGuiHome;
        this.isEditTask = false;
    }

    public addTask(TamaGuiHome tamaGuiHome, String taskName, String
difficulty, String dueDate, String dueTime) {
        initComponents();
        error = new Error();
        home = tamaGuiHome;
        this.TaskName.setText(taskName);
        this.dueDateField.setText(dueDate);
        this.dueTimeField.setText(dueTime);
        this.AddTaskLabel.setText("Edit Task");
        switch (difficulty) {
            case "Easy" -> this.Easy.setSelected(true);
            case "Medium" -> this.Medium.setSelected(true);
            default -> this.Hard.setSelected(true);
        }
        this.isEditTask = true;
    }

    private String getSelectedDifficulty()
    {
        Enumeration<AbstractButton> difficultyButtons =
Difficulty.getElements();
        while (difficultyButtons.hasMoreElements()) {

```

```

        AbstractButton difficultyButton =
difficultyButtons.nextElement();
        if (difficultyButton.isSelected()) {
            return difficultyButton.getText();
        }
    }
    return null;
}

private String validateTaskName(String taskName) {
    if (taskName == null || taskName.isEmpty()){
        return "Task Name is empty";
    }
    if (taskName.indexOf('-') > -1){
        return "Task Name cannot contains special character '-'";
    }
    return "";
}

private String validateDueDate(String dueDate) {
    if (dueDate == null || dueDate.isEmpty()){
        return "Due Date is empty";
    }
    String []dueDates = dueDate.split("/");
    if (dueDates.length != 3){
        return "Due Date needs to be in mm/dd/yyyy";
    }
    return "";
}

private String validateDueTime(String dueTime) {
    if (dueTime == null || dueTime.isEmpty()){
        return "Due Time is empty";
    }
    String []dueTimes = dueTime.split(":");
    if (dueTimes.length != 2){
        return "Due Time needs to be in hh:mm";
    }
    return "";
}

/**
 * This method is called from within the constructor to initialize
the form.

```

```

    * WARNING: Do NOT modify this code. The content of this method is
always
    * regenerated by the Form Editor.
    */
@SuppressWarnings("unchecked")
// <editor-fold defaultstate="collapsed" desc="Generated
Code">//GEN-BEGIN:initComponents
private void initComponents() {

    Difficulty = new javax.swing.ButtonGroup();
    jScrollPane1 = new javax.swing.JScrollPane();
    TaskName = new javax.swing.JTextPane();
    jScrollPane3 = new javax.swing.JScrollPane();
    dueDateField = new javax.swing.JTextPane();
    jScrollPane2 = new javax.swing.JScrollPane();
    dueTimeField = new javax.swing.JTextPane();
    AddTaskLabel = new javax.swing.JLabel();
    DueTimeLabel = new javax.swing.JLabel();
    TaskDifficultyLabel = new javax.swing.JLabel();
    CompleteByLabel = new javax.swing.JLabel();
    Easy = new javax.swing.JCheckBox();
    Medium = new javax.swing.JCheckBox();
    Hard = new javax.swing.JCheckBox();
    Done = new javax.swing.JButton();
    TaskNameLabel = new javax.swing.JLabel();
    DueDateLabel = new javax.swing.JLabel();

setDefaultCloseOperation(javax.swing.WindowConstants.DISPOSE_ON_CLOSE)
;

    jScrollPane1.setViewportView(TaskName);

    jScrollPane3.setViewportView(dueDateField);

    jScrollPane2.setViewportView(dueTimeField);

    AddTaskLabel.setFont(new java.awt.Font("Helvetica Neue", 0,
20)); // NOI18N
    AddTaskLabel.setText("Add Task");

    DueTimeLabel.setText("Due Time (hh:mm) :");

    TaskDifficultyLabel.setFont(new java.awt.Font("Helvetica
Neue", 0, 15)); // NOI18N

```

```

        TaskDifficultyLabel.setText("Choose Task Difficulty");

        CompleteByLabel.setFont(new java.awt.Font("Helvetica Neue", 0,
15)); // NOI18N
        CompleteByLabel.setText("Complete By:");

        Difficulty.add(Easy);
        Easy.setText("Easy");

        Difficulty.add(Medium);
        Medium.setText("Medium");

        Difficulty.add(Hard);
        Hard.setText("Hard");

        Done.setText("Done");
        Done.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent
evt) {
                DoneActionPerformed(evt);
            }
        });

        TaskNameLabel.setFont(new java.awt.Font("Helvetica Neue", 0,
15)); // NOI18N
        TaskNameLabel.setText("Task Name");

        DueDateLabel.setText("Due Date (mm/dd/yyyy) :");

        javax.swing.GroupLayout layout = new
javax.swing.GroupLayout(getContentPane());
        getContentPane().setLayout(layout);
        layout.setHorizontalGroup(
layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
                .addContainerGap()
                .addComponent(AddTaskLabel)
                .addGap(18, 18, 18)
                .addComponent(DifficultyLabel, javax.swing.GroupLayout.PREFERRED_SIZE,
Short.MAX_VALUE)
                .addGap(18, 18, 18)
                .addComponent(CompleteByLabel, javax.swing.GroupLayout.PREFERRED_SIZE,
Short.MAX_VALUE)
                .addGap(18, 18, 18)
                .addComponent(Done, javax.swing.GroupLayout.PREFERRED_SIZE,
Short.MAX_VALUE)
                .addGap(18, 18, 18)
                .addComponent(TaskNameLabel, javax.swing.GroupLayout.PREFERRED_SIZE,
Short.MAX_VALUE)
                .addGap(18, 18, 18)
                .addComponent(DueDateLabel, javax.swing.GroupLayout.PREFERRED_SIZE,
Short.MAX_VALUE)
            )
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(layout.createSequentialGroup()
                    .addContainerGap()
                    .addComponent(AddTaskLabel)
                    .addGap(18, 18, 18)
                    .addComponent(DifficultyLabel, javax.swing.GroupLayout.PREFERRED_SIZE,
Short.MAX_VALUE)
                    .addGap(18, 18, 18)
                    .addComponent(CompleteByLabel, javax.swing.GroupLayout.PREFERRED_SIZE,
Short.MAX_VALUE)
                    .addGap(18, 18, 18)
                    .addComponent(Done, javax.swing.GroupLayout.PREFERRED_SIZE,
Short.MAX_VALUE)
                    .addGap(18, 18, 18)
                    .addComponent(TaskNameLabel, javax.swing.GroupLayout.PREFERRED_SIZE,
Short.MAX_VALUE)
                    .addGap(18, 18, 18)
                    .addComponent(DueDateLabel, javax.swing.GroupLayout.PREFERRED_SIZE,
Short.MAX_VALUE)
                )
        );
    }
}

```

```
        .addComponent(Done)
        .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE))
    .addGroup(layout.createSequentialGroup()
        .addGap(18, 18, 18)

    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment
.LEADING)
        .addGroup(layout.createSequentialGroup()

    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment
.LEADING)
        .addComponent(Medium)
        .addComponent(Hard)
        .addComponent(Easy)
        .addComponent(TaskDifficultyLabel)
        .addComponent(TaskNameLabel,
javax.swing.GroupLayout.PREFERRED_SIZE, 121,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jScrollPane1,
javax.swing.GroupLayout.PREFERRED_SIZE, 249,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(CompleteByLabel))

    .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE))
    .addGroup(layout.createSequentialGroup()

    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment
.TRAILING)
        .addGroup(layout.createSequentialGroup()
            .addComponent(DueDateLabel)

    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addComponent(jScrollPane3,
javax.swing.GroupLayout.PREFERRED_SIZE, 125,
javax.swing.GroupLayout.PREFERRED_SIZE))

    .addGroup(javax.swing.GroupLayout.Alignment.LEADING,
layout.createSequentialGroup()
        .addComponent(DueTimeLabel)
        .addGroup(layout.createSequentialGroup()
            .addGap(39, 39, 39)
            .addComponent(jScrollPane2,
javax.swing.GroupLayout.PREFERRED_SIZE, 125,
javax.swing.GroupLayout.PREFERRED_SIZE)))
)
```

```
        .addContainerGap(18, Short.MAX_VALUE))))  
    );  
    layout.setVerticalGroup(  
  
layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)  
    .addGroup(layout.createSequentialGroup()  
        .addGap(20, 20, 20)  
        .addComponent(AddTaskLabel)  
  
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)  
    .addComponent(TaskNameLabel,  
javax.swing.GroupLayout.PREFERRED_SIZE, 20,  
javax.swing.GroupLayout.PREFERRED_SIZE)  
  
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)  
    .addComponent(jScrollPane1,  
javax.swing.GroupLayout.PREFERRED_SIZE,  
javax.swing.GroupLayout.DEFAULT_SIZE,  
javax.swing.GroupLayout.PREFERRED_SIZE)  
    .addGap(18, 18, 18)  
    .addComponent(TaskDifficultyLabel)  
  
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)  
    .addComponent(Easy)  
  
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)  
    .addComponent(Medium)  
  
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)  
    .addComponent(Hard)  
    .addGap(18, 18, 18)  
    .addComponent(CompleteByLabel)  
  
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)  
  
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)  
    .addComponent(DueDateLabel,  
javax.swing.GroupLayout.PREFERRED_SIZE, 23,  
javax.swing.GroupLayout.PREFERRED_SIZE)  
    .addComponent(jScrollPane3,  
javax.swing.GroupLayout.PREFERRED_SIZE,  
javax.swing.GroupLayout.DEFAULT_SIZE,  
javax.swing.GroupLayout.PREFERRED_SIZE))
```

```

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(DueTimeLabel,
        javax.swing.GroupLayout.PREFERRED_SIZE, 23,
        javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jScrollPane2,
        javax.swing.GroupLayout.PREFERRED_SIZE,
        javax.swing.GroupLayout.DEFAULT_SIZE,
        javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(18, 18, Short.MAX_VALUE)
        .addComponent(Done)
        .addGap(20, 20, 20))
    );

    pack();
}// </editor-fold>//GEN-END:initComponents

//Done Button
private void DoneActionPerformed(java.awt.event.ActionEvent evt)
{//GEN-FIRST:event_DoneActionPerformed

    //Sets task Name. Pops error message if field is empty
    taskName = TaskName.getText().trim();
    String errMsg = validateTaskName(taskName);
    if (!errMsg.equals("")){
        error.SetErrorMsg(errMsg);
        error.setVisible(true);
        return;
    }
    difficulty = getSelectedDifficulty();
    if (difficulty == null || difficulty.isEmpty()){
        error.SetErrorMsg("Difficulty is not selected");
        error.setVisible(true);
        return;
    }

    // Date validation
    dueDate = dueDateField.getText().trim();
    errMsg = validateDueDate(dueDate);
    if (!errMsg.equals ""){
        error.SetErrorMsg(errMsg);
    }
}

```

```

        error.setVisible(true);
        return;
    }
    // Time validation
    dueTime = dueTimeField.getText().trim();
    errMsg = validateDueTime(dueTime);
    if (!errMsg.equals("")){
        error.SetErrorMsg(errMsg);
        error.setVisible(true);
        return;
    }

    // TODO: Check if we can save DATE object
    String taskDate = dueDate + " " + dueTime;
    Date dateFormat;
    try {
        dateFormat = new SimpleDateFormat("mm/dd/yyyy
HH:mm").parse(taskDate);

    } catch(Exception e){
        error.SetErrorMsg(e.getMessage());
        error.setVisible(true);
        return;
    }

    Task newTask = new Task(taskName, difficulty, dueDate,
dueTime);
    home.addTask(newTask);
    System.out.println("Adding Task: " + newTask.toString());
    // Close the addTask window -- Last thing to run when "Done"
is pressed.
    // Update points if it is not edit task
    if (!this.isEditTask){
        home.addPoints(1);
        Error error = new Error();
        error.SetErrorMsg("Task added.Points gained: 1");
        error.setVisible(true);
    }
    this.dispose();
}//GEN-LAST:event_DoneActionPerformed

// Set method for taskName
public void setTaskName(String taskName){
    this.TaskName.setText(taskName);
}

```

```

// Get method for taskName
public String getTaskName(){
    return taskName;
}

// Get method for difficulty
public String getDifficulty() {
    return difficulty;
}

// Variables declaration - do not modify//GEN-BEGIN:variables
private javax.swing.JLabel AddTaskLabel;
private javax.swing.JLabel CompleteByLabel;
private javax.swing.ButtonGroup Difficulty;
private javax.swing.JButton Done;
private javax.swing.JLabel DueDateLabel;
private javax.swing.JLabel DueTimeLabel;
private javax.swing.JCheckBox Easy;
private javax.swing.JCheckBox Hard;
private javax.swing.JCheckBox Medium;
private javax.swing.JLabel TaskDifficultyLabel;
private javax.swing.JTextPane TaskName;
private javax.swing.JLabel TaskNameLabel;
private javax.swing.JTextPane dueDateField;
private javax.swing.JTextPane dueTimeField;
private javax.swing.JScrollPane jScrollPane1;
private javax.swing.JScrollPane jScrollPane2;
private javax.swing.JScrollPane jScrollPane3;
// End of variables declaration//GEN-END:variables
}

```

//FILE: TaskFriend/applet.policy

```

grant {
permission java.security.AllPermission;
};

```

//FILE: TaskFriend/build.xml

```

<?xml version="1.0" encoding="UTF-8"?>
<!-- You may freely edit this file. See commented blocks below for -->
<!-- some examples of how to customize the build. -->

```

```

<!-- (If you delete it and reopen the project it will be recreated.) -->
<!-- By default, only the Clean and Build commands use this build script. -->
<!-- Commands such as Run, Debug, and Test only use this build script if -->
<!-- the Compile on Save feature is turned off for the project. -->
<!-- You can turn off the Compile on Save (or Deploy on Save) setting -->
<!-- in the project's Project Properties dialog box.-->
<project name="TamaGui" default="default" basedir=".">
    <description>Builds, tests, and runs the project TamaGui.</description>
    <import file="nbproject/build-impl.xml"/>
    <!--

```

There exist several targets which are by default empty and which can be used for execution of your tasks. These targets are usually executed before and after some main targets. They are:

<pre> -project properties -pre-init: -post-init: -project properties -pre-compile: -post-compile: -pre-compile-single: single file -post-compile-single: single file -pre-compile-test: JUnit tests -post-compile-test: JUnit tests -pre-compile-test-single: single JUnit test -post-compile-test-single: single JUnit test -pre-jar: -post-jar: -post-clean: </pre>	<pre> called before initialization of called after initialization of called before javac compilation called after javac compilation called before javac compilation of called after javac compilation of called before javac compilation of called after javac compilation of called before javac compilation of called after javac compilation of called before JAR building called after JAR building called after cleaning build products </pre>
---	---

(Targets beginning with '-' are not intended to be called on their own.)

Example of inserting an obfuscator after compilation could look like this:

```
<target name="-post-compile">
    <obfuscate>
        <fileset dir="${build.classes.dir}" />
    </obfuscate>
</target>
```

For list of available properties check the imported nbproject/build-impl.xml file.

Another way to customize the build is by overriding existing main targets.

The targets of interest are:

-init-macrodef-javac:	defines macro for javac compilation
-init-macrodef-junit:	defines macro for junit execution
-init-macrodef-debug:	defines macro for class debugging
-init-macrodef-java:	defines macro for class execution
-do-jar:	JAR building
run:	execution of project
-javadoc-build:	Javadoc generation
test-report:	JUnit report generation

An example of overriding the target for project execution could look like this:

```
<target name="run" depends="TamaGui-impl.jar">
    <exec dir="bin" executable="launcher.exe">
        <arg file="${dist.jar}" />
    </exec>
</target>
```

Notice that the overridden target depends on the jar target and not only on

the compile target as the regular run target does. Again, for a list of available

properties which you can use, check the target you are overriding in the nbproject/build-impl.xml file.

```
-->
</project>
```

//FILE: TaskFriend/manifest.mf

```
Manifest-Version: 1.0
X-COMMENT: Main-Class will be added automatically by build
```

//FILE: TaskFriend/nbproject/build-impl.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<!--
*** GENERATED FROM project.xml - DO NOT EDIT ***
***           EDIT ../build.xml INSTEAD           ***
-->
```

For the purpose of easier reading the script
is divided into following sections:

- initialization
- compilation
- jar
- execution
- debugging
- javadoc
- test compilation
- test execution
- test debugging
- applet
- cleanup

```
-->
<project xmlns:if="ant:if"
xmlns:j2seproject1="http://www.netbeans.org/ns/j2se-project/1"
xmlns:j2seproject3="http://www.netbeans.org/ns/j2se-project/3"
xmlns:jaxrpc="http://www.netbeans.org/ns/j2se-project/jax-rpc"
xmlns:unless="ant:unless" basedir=".." default="default"
name="TamaGui-impl">
    <fail message="Please build using Ant 1.8.0 or higher.">
        <condition>
            <not>
                <antversion atleast="1.8.0"/>
            </not>
        </condition>
```

```

        </fail>
    <target depends="test,jar,javadoc" description="Build and test
whole project." name="default"/>
    <!--
        =====
        INITIALIZATION SECTION
        =====
        -->
<target name="-pre-init">
    <!-- Empty placeholder for easier customization. -->
    <!-- You can override this target in the ../build.xml file.
-->
</target>
<target depends="-pre-init" name="-init-private">
    <property file="nbproject/private/config.properties"/>
    <property
file="nbproject/private/configs/${config}.properties"/>
    <property file="nbproject/private/private.properties"/>
</target>
<target depends="-pre-init,-init-private" name="-init-user">
    <property file="${user.properties.file}" />
    <!-- The two properties below are usually overridden -->
    <!-- by the active platform. Just a fallback. -->
    <property name="default.javac.source" value="1.8"/>
    <property name="default.javac.target" value="1.8"/>
</target>
<target depends="-pre-init,-init-private,-init-user"
name="-init-project">
    <property file="nbproject/configs/${config}.properties"/>
    <property file="nbproject/project.properties"/>
</target>
<target name="-init-modules-supported">
    <condition property="modules.supported.internal" value="true">
        <not>
            <matches pattern="1\.[0-8](\..*)?">
string="\${javac.source}"/>
        </not>
    </condition>
</target>
<target depends="-init-modules-supported"
if="modules.supported.internal" name="-init-macrodef-modulename">
    <macrodef name="modulename"
uri="http://www.netbeans.org/ns/j2se-project/3">
        <attribute name="property"/>
        <attribute name="sourcepath"/>

```

```

<sequential>
    <loadresource property="@{property}" quiet="true">
        <javaresource classpath="@{sourcepath}"
name="module-info.java" parentFirst="false"/>
        <filterchain>
            <stripjavacomments/>
            <linecontainsregexp>
                <regexp pattern="module .* \{"/>
            </linecontainsregexp>
            <tokenfilter>
                <linetokenizer/>
                <replaceregex flags="s"
pattern="(\s*module\s+)(\S*)(\s*\{\.*)" replace="\2"/>
                </tokenfilter>
                <striplinebreaks/>
            </filterchain>
        </loadresource>
    </sequential>
</macrodef>
</target>
<target
depends="-init-modules-supported,-init-macrodef-modulename"
if="modules.supported.internal" name="-init-source-module-properties">
    <fail message="Java 9 support requires Ant 1.10.0 or higher.">
        <condition>
            <not>
                <antversion atleast="1.10.0"/>
            </not>
        </condition>
    </fail>
    <j2seproject3:modulename property="module.name"
sourcepath="${src.dir}"/>
    <condition property="named.module.internal">
        <and>
            <isset property="module.name"/>
            <length length="0" string="${module.name}">
when="greater"/>
            </and>
        </condition>
        <condition property="unnamed.module.internal">
            <not>
                <isset property="named.module.internal"/>
            </not>
        </condition>
        <property name="javac.modulepath" value="" />
    
```

```

<property name="run.modulepath" value="${javac.modulepath}"/>
<property name="module.build.classes.dir"
value="${build.classes.dir}"/>
    <property name="debug.modulepath" value="${run.modulepath}"/>
    <property name="javac.upgrademodulepath" value="" />
    <property name="run.upgrademodulepath"
value="${javac.upgrademodulepath}"/>
        <condition else="" 
property="javac.systemmodulepath.cmd.line.arg" value="--system
'${javac.systemmodulepath}'">
            <and>
                <isset property="javac.systemmodulepath"/>
                <length length="0" string="${javac.systemmodulepath}" 
when="greater"/>
            </and>
        </condition>
    <property name="dist.jlink.dir" value="${dist.dir}/jlink"/>
    <property name="dist.jlink.output"
value="${dist.jlink.dir}/${application.title}"/>
        <property name="module.name" value="" />
</target>
<target
depends="-pre-init,-init-private,-init-user,-init-project,-init-macrodef-property,-init-modules-supported" name="-do-init">
    <property name="platform.java" value="${java.home}/bin/java"/>
    <available file="${manifest.file}"
property="manifest.available"/>
        <condition property="splashscreen.available">
            <and>
                <not>
                    <equals arg1="${application.splash}" arg2="" 
trim="true"/>
                </not>
                <available file="${application.splash}"/>
            </and>
        </condition>
        <condition property="main.class.available">
            <and>
                <isset property="main.class"/>
                <not>
                    <equals arg1="${main.class}" arg2="" trim="true"/>
                </not>
            </and>
        </condition>
        <condition property="profile.available">

```

```

<and>
    <isset property="javac.profile"/>
    <length length="0" string="${javac.profile}" when="greater"/>
        <not>
            <matches pattern="1\.[0-7](\..*)?" string="${javac.source}">
                </not>
            </and>
        </condition>
    <condition property="do.archive">
        <or>
            <not>
                <istrue value="${jar.archive.disabled}" />
            </not>
                <istrue value="${not.archive.disabled}" />
        </or>
    </condition>
    <condition property="do.archive+manifest.available">
        <and>
            <isset property="manifest.available"/>
            <istrue value="${do.archive}" />
        </and>
    </condition>
    <condition property="do.archive+main.class.available">
        <and>
            <isset property="main.class.available"/>
            <istrue value="${do.archive}" />
        </and>
    </condition>
    <condition property="do.archive+splashscreen.available">
        <and>
            <isset property="splashscreen.available"/>
            <istrue value="${do.archive}" />
        </and>
    </condition>
    <condition property="do.archive+profile.available">
        <and>
            <isset property="profile.available"/>
            <istrue value="${do.archive}" />
        </and>
    </condition>
    <condition property="have.tests">
        <or>
            <available file="${test.src.dir}" />

```

```

        </or>
    </condition>
    <condition property="have.sources">
        <or>
            <available file="${src.dir}" />
        </or>
    </condition>
    <condition property="netbeans.home+have.tests">
        <and>
            <isset property="netbeans.home"/>
            <isset property="have.tests"/>
        </and>
    </condition>
    <condition property="no.javadoc.preview">
        <and>
            <isset property="javadoc.preview"/>
            <iffalse value="${javadoc.preview}" />
        </and>
    </condition>
    <property name="run.jvmargs" value="" />
    <property name="run.jvmargs.ide" value="" />
    <property name="javac.compilerargs" value="" />
    <property name="work.dir" value="${basedir}" />
    <condition property="no.deps">
        <and>
            <istrue value="${no.dependencies}" />
        </and>
    </condition>
    <property name="javac.debug" value="true" />
    <property name="javadoc.preview" value="true" />
    <property name="application.args" value="" />
    <property name="source.encoding" value="${file.encoding}" />
    <property name="runtime.encoding" value="${source.encoding}" />
    <property name="manifest.encoding"
value="${source.encoding}" />
        <condition property="javadoc.encoding.used"
value="${javadoc.encoding}" />
        <and>
            <isset property="javadoc.encoding" />
            <not>
                <equals arg1="${javadoc.encoding}" arg2=""/>
            </not>
        </and>
    </condition>

```

```

<property name="javadoc.encoding.used"
value="\$\{source.encoding\}" />
<property name="includes" value="**"/>
<property name="excludes" value="" />
<property name="do.depend" value="false" />
<condition property="do.depend.true">
    <istrue value="\$\{do.depend\}" />
</condition>
<path id="endorsed.classpath.path"
path="\$\{endorsed.classpath\}" />
<condition else="" property="endorsed.classpath.cmd.line.arg"
value="-Xbootclasspath/p:\$\{toString:endorsed.classpath.path\}'">
    <and>
        <isset property="endorsed.classpath"/>
        <not>
            <equals arg1="\$\{endorsed.classpath\}" arg2="" trim="true" />
        </not>
    </and>
</condition>
<condition else="" property="javac.profile.cmd.line.arg"
value="-profile \${javac.profile}">
    <isset property="profile.available"/>
</condition>
<condition else="false" property="jdkBug6558476">
    <and>
        <matches pattern="1\.[56]" string="\$\{java.specification.version\}" />
        <not>
            <os family="unix" />
        </not>
    </and>
</condition>
<condition else="false" property="javac.fork">
    <or>
        <istrue value="\$\{jdkBug6558476\}" />
        <istrue value="\$\{javac.external.vm\}" />
    </or>
</condition>
<property name="jar.index" value="false" />
<property name="jar.index.metainf" value="\$\{jar.index\}" />
<property name="copylibs.rebase" value="true" />
<available file="\$\{meta.inf.dir\}/persistence.xml" property="has.persistence.xml" />
<condition property="junit.available">

```

```

        <or>
            <available classname="org.junit.Test"
classpath="${run.test.classpath}"/>
            <available classname="junit.framework.Test"
classpath="${run.test.classpath}"/>
        </or>
    </condition>
    <condition property="testng.available">
        <available classname="org.testng.annotations.Test"
classpath="${run.test.classpath}"/>
    </condition>
    <condition property="junit+testng.available">
        <and>
            <istrue value="${junit.available}"/>
            <istrue value="${testng.available}"/>
        </and>
    </condition>
    <condition else="testng" property="testng.mode" value="mixed">
        <istrue value="${junit+testng.available}"/>
    </condition>
    <condition else="" property="testng.debug.mode"
value="-mixed">
        <istrue value="${junit+testng.available}"/>
    </condition>
    <property name="java.failonerror" value="true"/>
</target>
<target name="-post-init">
    <!-- Empty placeholder for easier customization. -->
    <!-- You can override this target in the ../build.xml file.
-->
</target>
<target
depends="-pre-init,-init-private,-init-user,-init-project,-do-init"
name="-init-check">
    <fail unless="src.dir">Must set src.dir</fail>
    <fail unless="test.src.dir">Must set test.src.dir</fail>
    <fail unless="build.dir">Must set build.dir</fail>
    <fail unless="dist.dir">Must set dist.dir</fail>
    <fail unless="build.classes.dir">Must set
build.classes.dir</fail>
    <fail unless="dist.javadoc.dir">Must set
dist.javadoc.dir</fail>
    <fail unless="build.test.classes.dir">Must set
build.test.classes.dir</fail>

```

```

        <fail unless="build.test.results.dir">Must set
build.test.results.dir</fail>
        <fail unless="build.classes.excludes">Must set
build.classes.excludes</fail>
        <fail unless="dist.jar">Must set dist.jar</fail>
    </target>
    <target name="-init-macrodef-property">
        <macrodef name="property"
uri="http://www.netbeans.org/ns/j2se-project/1">
            <attribute name="name"/>
            <attribute name="value"/>
            <sequential>
                <property name="@{name}" value="${@{value}}"/>
            </sequential>
        </macrodef>
    </target>
    <target
depends="-init-ap-cmdline-properties,-init-source-module-properties"
if="modules.supported.internal"
name="-init-macrodef-javac-with-module">
        <macrodef name="javac"
uri="http://www.netbeans.org/ns/j2se-project/3">
            <attribute default="${src.dir}" name="srkdir"/>
            <attribute default="${build.classes.dir}" name="destdir"/>
            <attribute default="${javac.classpath}" name="classpath"/>
            <attribute default="${javac.modulepath}"
name="modulepath"/>
            <attribute default="${javac.upgrademodulepath}"
name="upgrademodulepath"/>
            <attribute default="${javac.processorpath}"
name="processorpath"/>
            <attribute default="${javac.processormodulepath}"
name="processormodulepath"/>
            <attribute
default="${build.generated.sources.dir}/ap-source-output"
name="apgeneratedsrcdir"/>
            <attribute default="${includes}" name="includes"/>
            <attribute default="${excludes}" name="excludes"/>
            <attribute default="${javac.debug}" name="debug"/>
            <attribute default="${empty.dir}" name="sourcepath"
unless:set="named.module.internal"/>
            <attribute default="${src.dir}"
if:set="named.module.internal" name="sourcepath"/>
            <attribute default="${empty.dir}" name="gensrcdir"/>
            <element name="customize" optional="true"/>

```

```

<sequential>
    <condition property="warn.excludes.internal">
        <and>
            <isset property="named.module.internal"/>
            <length length="0" string="@{excludes}" trim="true" when="greater"/>
        </and>
    </condition>
    <echo if:set="warn.excludes.internal" level="warning" message="The javac excludes are not supported in the JDK 9 Named Module."/>
    <property location="${build.dir}/empty" name="empty.dir"/>
    <mkdir dir="${empty.dir}"/>
    <mkdir dir="@{apgeneratedsrcdir}"/>
    <condition property="processormodulepath.set">
        <resourcecount count="0" when="greater">
            <path>
                <pathelement path="@{processormodulepath}"/>
            </path>
        </resourcecount>
    </condition>
    <javac debug="@{debug}" deprecation="${javac.deprecation}" destdir="@{destdir}" encoding="${source.encoding}" excludes="@{excludes}" fork="${javac.fork}" includeantruntime="false" includes="@{includes}" source="${javac.source}" sourcepath="@{sourcepath}" srcdir="@{srcdir}" target="${javac.target}" tempdir="${java.io.tmpdir}">
        <src>
            <dirset dir="@{gensrcdir}" erroronmissingdir="false">
                <include name="*"/>
            </dirset>
        </src>
        <classpath>
            <path path="@{classpath}"/>
        </classpath>
        <modulepath>
            <path path="@{modulepath}"/>
        </modulepath>
        <upgrademodelepath>
            <path path="@{upgrademodelepath}"/>
        </upgrademodelepath>
    
```

```

                <compilerarg
line="${javac.systemmodulepath.cmd.line.arg}"/>
                <compilerarg
line="${javac.profile.cmd.line.arg}"/>
                <compilerarg line="${javac.compilerargs}"/>
                <compilerarg if:set="processormodulepath.set"
value="--processor-module-path"/>
                <compilerarg if:set="processormodulepath.set"
path="@{processormodulepath}"/>
                <compilerarg unless:set="processormodulepath.set"
value="-processorpath"/>
                <compilerarg path="@{processorpath}:${empty.dir}"
unless:set="processormodulepath.set"/>
                <compilerarg line="${ap.processors.internal}"/>
                <compilerarg
line="${annotationprocessing.processor.options}"/>
                <compilerarg value="-s"/>
                <compilerarg path="@{apgeneratedsrcdir}"/>
                <compilerarg line="${ap.proc.none.internal}"/>
                <customize/>
            </javac>
        </sequential>
    </macrodef>
</target>
<target
depends="-init-ap-cmdline-properties,-init-source-module-properties"
if="ap.supported.internal" name="-init-macrodef-javac-with-processors"
unless="modules.supported.internal">
    <macrodef name="javac"
uri="http://www.netbeans.org/ns/j2se-project/3">
        <attribute default="${src.dir}" name="srcdir"/>
        <attribute default="${build.classes.dir}" name="destdir"/>
        <attribute default="${javac.classpath}" name="classpath"/>
        <attribute default="${javac.modulepath}"
name="modulepath"/>
        <attribute default="${javac.upgrademodulepath}"
name="upgrademodulepath"/>
        <attribute default="${javac.processorpath}"
name="processorpath"/>
        <attribute
default="${build.generated.sources.dir}/ap-source-output"
name="apgeneratedsrcdir"/>
        <attribute default="${includes}" name="includes"/>
        <attribute default="${excludes}" name="excludes"/>
        <attribute default="${javac.debug}" name="debug"/>

```

```

<attribute default="${empty.dir}" name="sourcepath"/>
<attribute default="${empty.dir}" name="gensrcdir"/>
<element name="customize" optional="true"/>
<sequential>
    <property location="${build.dir}/empty"
name="empty.dir"/>
        <mkdir dir="${empty.dir}"/>
        <mkdir dir="@{apgeneratedsrcdir}"/>
        <javac debug="@{debug}"
deprecation="${javac.deprecation}" destdir="@{destdir}"
encoding="${source.encoding}" excludes="@{excludes}"
fork="${javac.fork}" includeantruntime="false" includes="@{includes}"
source="${javac.source}" sourcepath="@{sourcepath}" srcdir="@{srcdir}"
target="${javac.target}" tempdir="${java.io.tmpdir}">
            <src>
                <dirset dir="@{gensrcdir}"
erroronmissingdir="false">
                    <include name="*"/>
                </dirset>
            </src>
            <classpath>
                <path path="@{classpath}"/>
            </classpath>
            <compilerarg
line="${endorsed.classpath.cmd.line.arg}"/>
            <compilerarg
line="${javac.profile.cmd.line.arg}"/>
                <compilerarg line="${javac.compilerargs}"/>
                <compilerarg value="-processorpath"/>
                <compilerarg
path="@{processorpath}:${empty.dir}"/>
                    <compilerarg line="${ap.processors.internal}"/>
                <compilerarg
line="${annotation.processing.processor.options}"/>
                    <compilerarg value="-s"/>
                    <compilerarg path="@{apgeneratedsrcdir}"/>
                    <compilerarg line="${ap.proc.none.internal}"/>
                    <customize/>
                </javac>
            </sequential>
        </macrodef>
    </target>
    <target
depends="-init-ap-cmdline-properties,-init-source-module-properties"

```

```

name="-init-macrodef-javac-without-processors"
unless="ap.supported.internal">
    <macrodef name="javac"
uri="http://www.netbeans.org/ns/j2se-project/3">
    <attribute default="${src.dir}" name="srccdir"/>
    <attribute default="${build.classes.dir}" name="destdir"/>
    <attribute default="${javac.classpath}" name="classpath"/>
    <attribute default="${javac.modulepath}" name="modulepath"/>
    <attribute default="${javac.upgrademodulepath}" name="upgrademodulepath"/>
    <attribute default="${javac.processorpath}" name="processorpath"/>
    <attribute default="${build.generated.sources.dir}/ap-source-output" name="apgeneratedsrccdir"/>
        <attribute default="${includes}" name="includes"/>
        <attribute default="${excludes}" name="excludes"/>
        <attribute default="${javac.debug}" name="debug"/>
        <attribute default="${empty.dir}" name="sourcepath"/>
        <attribute default="${empty.dir}" name="gensrccdir"/>
        <element name="customize" optional="true"/>
        <sequential>
            <property location="${build.dir}/empty" name="empty.dir"/>
            <mkdir dir="${empty.dir}"/>
            <javac debug="@{debug}" deprecation="${javac.deprecation}" destdir="@{destdir}" encoding="${source.encoding}" excludes="@{excludes}" fork="${javac.fork}" includeantruntime="false" includes="@{includes}" source="${javac.source}" sourcepath="@{sourcepath}" srccdir="@{srccdir}" target="${javac.target}" tempdir="${java.io.tmpdir}">
                <src>
                    <dirset dir="@{gensrccdir}" erroronmissingdir="false">
                        <include name="*"/>
                    </dirset>
                </src>
                <classpath>
                    <path path="@{classpath}"/>
                </classpath>
                <compilerarg line="${endorsed.classpath.cmd.line.arg}"/>
                <compilerarg line="${javac.profile.cmd.line.arg}"/>

```

```

        <compilerarg line="${javac.compilerargs}" />
        <customize/>
    </javac>
</sequential>
</macrodef>
</target>
<target
depends="-init-macrodef-javac-with-module,-init-macrodef-javac-with-pr
ocessors,-init-macrodef-javac-without-processors"
name="-init-macrodef-javac">
    <macrodef name="depend"
uri="http://www.netbeans.org/ns/j2se-project/3">
        <attribute default="${src.dir}" name="srmdir"/>
        <attribute default="${build.classes.dir}" name="destdir"/>
        <attribute default="${javac.classpath}" name="classpath"/>
        <sequential>
            <depend cache="${build.dir}/depcache"
destdir="@{destdir}" excludes="${excludes}" includes="${includes}"
srcdir="@{srcdir}">
                <classpath>
                    <path path="@{classpath}" />
                </classpath>
            </depend>
        </sequential>
    </macrodef>
    <macrodef name="force-recompile"
uri="http://www.netbeans.org/ns/j2se-project/3">
        <attribute default="${build.classes.dir}" name="destdir"/>
        <sequential>
            <fail unless="javac.includes">Must set
javac.includes</fail>
            <pathconvert pathsep="${line.separator}"
property="javac.includes.binary">
                <path>
                    <filelist dir="@{destdir}"
files="${javac.includes}" />
                </path>
                <globmapper from="*.java" to="*.class" />
            </pathconvert>
            < tempfile deleteonexit="true"
property="javac.includesfile.binary" />
            <echo file="${javac.includesfile.binary}" />
            <delete>

```

```

            <files
includesfile="${javac.includesfile.binary}"/>
        </delete>
        <delete>
            <fileset file="${javac.includesfile.binary}"/>
        </delete>
    </sequential>
</macrodef>
</target>
<target if="${junit.available}" name="-init-macrodef-junit-init">
    <condition else="false" property="nb.junit.batch"
value="true">
        <and>
            <istrue value="${junit.available}"/>
        <not>
            <isset property="test.method"/>
        </not>
        </and>
    </condition>
    <condition else="false" property="nb.junit.single"
value="true">
        <and>
            <istrue value="${junit.available}"/>
            <isset property="test.method"/>
        </and>
    </condition>
</target>
<target name="-init-test-properties">
    <property name="test.binaryincludes" value="&lt;nothing&gt;"/>
    <property name="test.binarytestincludes" value="" />
    <property name="test.binaryexcludes" value="" />
</target>
<target depends="-init-modules-supported"
if="modules.supported.internal"
name="-init-macrodef-junit-prototype-with-module">
    <macrodef name="junit-prototype"
uri="http://www.netbeans.org/ns/j2se-project/3">
        <attribute default="${includes}" name="includes"/>
        <attribute default="${excludes}" name="excludes"/>
        <element name="customizePrototype" optional="true"/>
        <sequential>
            <property name="junit.forkmode" value="perTest"/>
            <junit dir="${work.dir}" errorproperty="tests.failed"
failureproperty="tests.failed" fork="true"
forkmode="${junit.forkmode}" showoutput="true" tempdir="${build.dir}">

```

```

        <syspropertyset>
            <propertyref prefix="test-sys-prop."/>
            <mapper from="test-sys-prop.*" to="*"
type="glob"/>
        </syspropertyset>
        <classpath>
            <path path="${run.test.classpath}"/>
        </classpath>
        <modulepath>
            <path path="${run.test.modulepath}"/>
        </modulepath>
        <formatter type="brief" usefile="false"/>
        <formatter type="xml"/>
        <jvmarg
line="${endorsed.classpath.cmd.line.arg}"/>
            <jvmarg value="-ea"/>
            <jvmarg line="${run.test.jvmargs}"/>
            <customizePrototype/>
        </junit>
    </sequential>
</macrodef>
</target>
<target depends="-init-modules-supported"
name="-init-macrodef-junit-prototype-without-module"
unless="modules.supported.internal">
    <macrodef name="junit-prototype"
uri="http://www.netbeans.org/ns/j2se-project/3">
        <attribute default="${includes}" name="includes"/>
        <attribute default="${excludes}" name="excludes"/>
        <element name="customizePrototype" optional="true"/>
        <sequential>
            <property name="junit.forkmode" value="perTest"/>
            <junit dir="${work.dir}" errorproperty="tests.failed"
failureproperty="tests.failed" fork="true"
forkmode="${junit.forkmode}" showoutput="true" tempdir="${build.dir}">
                <syspropertyset>
                    <propertyref prefix="test-sys-prop."/>
                    <mapper from="test-sys-prop.*" to="*"
type="glob"/>
                </syspropertyset>
                <classpath>
                    <path path="${run.test.classpath}"/>
                </classpath>
                <formatter type="brief" usefile="false"/>
                <formatter type="xml"/>

```

```

                <jvmarg
line="${endorsed.classpath.cmd.line.arg}" />
                    <jvmarg value="-ea"/>
                    <customizePrototype/>
                </junit>
            </sequential>
        </macrodef>
    </target>
<target
depends="-init-test-properties,-init-macrodef-junit-prototype-with-mod
ule,-init-macrodef-junit-prototype-without-module"
if="${nb.junit.single}" name="-init-macrodef-junit-single"
unless="${nb.junit.batch}">
    <macrodef name="junit"
uri="http://www.netbeans.org/ns/j2se-project/3">
        <attribute default="${includes}" name="includes"/>
        <attribute default="${excludes}" name="excludes"/>
        <attribute default="**" name="testincludes"/>
        <attribute default="" name="testmethods"/>
        <element name="customize" optional="true"/>
        <sequential>
            <j2seproject3:junit-prototype>
                <customizePrototype>
                    <test methods="@{testmethods}"
name="@{testincludes}" todir="${build.test.results.dir}"/>
                    <customize/>
                </customizePrototype>
            </j2seproject3:junit-prototype>
        </sequential>
    </macrodef>
</target>
<target
depends="-init-test-properties,-init-macrodef-junit-prototype-with-mod
ule,-init-macrodef-junit-prototype-without-module"
if="${nb.junit.batch}" name="-init-macrodef-junit-batch"
unless="${nb.junit.single}">
    <macrodef name="junit"
uri="http://www.netbeans.org/ns/j2se-project/3">
        <attribute default="${includes}" name="includes"/>
        <attribute default="${excludes}" name="excludes"/>
        <attribute default="**" name="testincludes"/>
        <attribute default="" name="testmethods"/>
        <element name="customize" optional="true"/>
        <sequential>
            <j2seproject3:junit-prototype>

```

```

        <customizePrototype>
            <batchtest todir="${build.test.results.dir}">
                <fileset dir="${test.src.dir}"
excludes="@{excludes}, ${excludes}" includes="@{includes}">
                    <filename name="@{testincludes}"/>
                </fileset>
                <fileset dir="${build.test.classes.dir}"
excludes="@{excludes}, ${excludes}, ${test.binaryexcludes}"
includes="${test.binaryincludes}">
                    <filename
name="${test.binarytestincludes}"/>
                </fileset>
            </batchtest>
            <customize/>
        </customizePrototype>
    </j2seproject3:junit-prototype>
</sequential>
</macrodef>
</target>
<target
depends="-init-macrodef-junit-init,-init-macrodef-junit-single,
-init-macrodef-junit-batch" if="${junit.available}"
name="-init-macrodef-junit"/>
<target if="${testng.available}" name="-init-macrodef-testng">
    <macrodef name="testng"
uri="http://www.netbeans.org/ns/j2se-project/3">
        <attribute default="${includes}" name="includes"/>
        <attribute default="${excludes}" name="excludes"/>
        <attribute default="**" name="testincludes"/>
        <attribute default="" name="testmethods"/>
        <element name="customize" optional="true"/>
        <sequential>
            <condition else="" property="testng.methods.arg"
value="@{testincludes}.@{testmethods}">
                <isset property="test.method"/>
            </condition>
            <union id="test.set">
                <fileset dir="${test.src.dir}"
excludes="@{excludes}, **/*.xml, ${excludes}" includes="@{includes}">
                    <filename name="@{testincludes}"/>
                </fileset>
            </union>
            <taskdef classname="org.testng.TestNGAntTask"
classpath="${run.test.classpath}" name="testng"/>

```

```

        <testng classfilesetref="test.set"
failureProperty="tests.failed"
listeners="org.testng.reporters.VerboseReporter"
methods="${testng.methods.arg}" mode="${testng.mode}"
outputdir="${build.test.results.dir}" suitetname="TamaGui"
testname="TestNG tests" workingDir="${work.dir}">
    <xmlfileset dir="${build.test.classes.dir}">
includes="@{testincludes}">
    <propertyset>
        <propertyref prefix="test-sys-prop." />
        <mapper from="test-sys-prop.*" to="*"
type="glob"/>
    </propertyset>
    <classpath>
        <path path="${run.test.classpath}" />
    </classpath>
    <jvmarg
line="${endorsed.classpath.cmd.line.arg}" />
    <customize/>
</testng>
</sequential>
</macrodef>
</target>
<target name="-init-macrodef-test-impl">
    <macrodef name="test-impl"
uri="http://www.netbeans.org/ns/j2se-project/3">
        <attribute default="${includes}" name="includes"/>
        <attribute default="${excludes}" name="excludes"/>
        <attribute default="**" name="testincludes"/>
        <attribute default="" name="testmethods"/>
        <element implicit="true" name="customize"
optional="true"/>
        <sequential>
            <echo>No tests executed.</echo>
        </sequential>
    </macrodef>
</target>
<target depends="-init-macrodef-junit" if="${junit.available}"
name="-init-macrodef-junit-impl">
    <macrodef name="test-impl"
uri="http://www.netbeans.org/ns/j2se-project/3">
        <attribute default="${includes}" name="includes"/>
        <attribute default="${excludes}" name="excludes"/>
        <attribute default="**" name="testincludes"/>
        <attribute default="" name="testmethods"/>

```

```

        <element implicit="true" name="customize"
optional="true"/>
        <sequential>
            <j2seproject3:junit excludes="@{excludes}"
includes="@{includes}" testincludes="@{testincludes}"
testmethods="@{testmethods}">
                <customize/>
            </j2seproject3:junit>
        </sequential>
    </macrodef>
</target>
<target depends="-init-macrodef-testng" if="${testng.available}"
name="-init-macrodef-testng-impl">
    <macrodef name="test-impl"
uri="http://www.netbeans.org/ns/j2se-project/3">
        <attribute default="${includes}" name="includes"/>
        <attribute default="${excludes}" name="excludes"/>
        <attribute default="**" name="testincludes"/>
        <attribute default="" name="testmethods"/>
        <element implicit="true" name="customize"
optional="true"/>
        <sequential>
            <j2seproject3:testng excludes="@{excludes}"
includes="@{includes}" testincludes="@{testincludes}"
testmethods="@{testmethods}">
                <customize/>
            </j2seproject3:testng>
        </sequential>
    </macrodef>
</target>
<target
depends="-init-macrodef-test-impl,-init-macrodef-junit-impl,-init-mac
rodef-testng-impl" name="-init-macrodef-test">
    <macrodef name="test"
uri="http://www.netbeans.org/ns/j2se-project/3">
        <attribute default="${includes}" name="includes"/>
        <attribute default="${excludes}" name="excludes"/>
        <attribute default="**" name="testincludes"/>
        <attribute default="" name="testmethods"/>
        <sequential>
            <j2seproject3:test-impl excludes="@{excludes}"
includes="@{includes}" testincludes="@{testincludes}"
testmethods="@{testmethods}">
                <customize>
                    <jvmarg line="${run.jvmargs}" />

```

```

                <jvmarg line="${run.jvmargs.ide}" />
            </customize>
        </j2seproject3:test-impl>
    </sequential>
</macrodef>
</target>
<target depends="-init-macrodef-junit" if="${junit.available}"
name="-init-macrodef-junit-debug-impl">
    <macrodef name="test-debug-impl"
uri="http://www.netbeans.org/ns/j2se-project/3">
        <attribute default="${includes}" name="includes"/>
        <attribute default="${excludes}" name="excludes"/>
        <attribute default="**" name="testincludes"/>
        <attribute default="" name="testmethods"/>
        <element name="customizeDebuggee" optional="true"/>
        <sequential>
            <j2seproject3:junit excludes="@{excludes}"
includes="@{includes}" testincludes="@{testincludes}"
testmethods="@{testmethods}">
                <customize>
                    <jvmarg
value="-agentlib:jdwp=transport=${debug-transport},address=${jpda.address}" />
                    <customizeDebuggee/>
                </customize>
            </j2seproject3:junit>
        </sequential>
    </macrodef>
</target>
<target if="${testng.available}"
name="-init-macrodef-testng-debug">
    <macrodef name="testng-debug"
uri="http://www.netbeans.org/ns/j2se-project/3">
        <attribute default="${main.class}" name="testClass"/>
        <attribute default="" name="testMethod"/>
        <element name="customize2" optional="true"/>
        <sequential>
            <condition else="-testclass {@{testClass}}"
property="test.class.or.method" value="-methods
{@{testClass}.@{testMethod}}">
                <isset property="test.method"/>
            </condition>
            <condition else="-suitename TamaGui -testname
{@{testClass}} ${test.class.or.method}" property="testng.cmd.args"
value="@{testClass}">

```

```

        <matches pattern=".*\.\xml" string="@{testClass}"/>
    </condition>
    <delete dir="${build.test.results.dir}" quiet="true"/>
    <mkdir dir="${build.test.results.dir}"/>
    <j2seproject3:debug classname="org.testng.TestNG"
classpath="${debug.test.classpath}">
        <customizeDebuggee>
            <customize2/>
            <jvmarg value="-ea"/>
            <arg line="${testng.debug.mode}"/>
            <arg line="-d ${build.test.results.dir}"/>
            <arg line="-listener
org.testng.reporters.VerboseReporter"/>
            <arg line="${testng.cmd.args}"/>
        </customizeDebuggee>
    </j2seproject3:debug>
</sequential>
</macrodef>
</target>
<target depends="-init-macrodef-testng-debug"
if="${testng.available}" name="-init-macrodef-testng-debug-impl">
    <macrodef name="testng-debug-impl"
uri="http://www.netbeans.org/ns/j2se-project/3">
        <attribute default="${main.class}" name="testClass"/>
        <attribute default="" name="testMethod"/>
        <element implicit="true" name="customize2"
optional="true"/>
        <sequential>
            <j2seproject3:testng-debug testClass="@{testClass}"
testMethod="@{testMethod}">
                <customize2/>
            </j2seproject3:testng-debug>
        </sequential>
    </macrodef>
</target>
<target depends="-init-macrodef-junit-debug-impl"
if="${junit.available}" name="-init-macrodef-test-debug-junit">
    <macrodef name="test-debug"
uri="http://www.netbeans.org/ns/j2se-project/3">
        <attribute default="${includes}" name="includes"/>
        <attribute default="${excludes}" name="excludes"/>
        <attribute default="**" name="testincludes"/>
        <attribute default="" name="testmethods"/>
        <attribute default="${main.class}" name="testClass"/>
        <attribute default="" name="testMethod"/>

```

```

<sequential>
    <j2seproject3:test-debug-impl excludes="@{excludes}"
includes="@{includes}" testincludes="@{testincludes}"
testmethods="@{testmethods}">
        <customizeDebuggee>
            <jvmarg line="${run.jvmargs}"/>
            <jvmarg line="${run.jvmargs.ide}"/>
        </customizeDebuggee>
    </j2seproject3:test-debug-impl>
</sequential>
</macrodef>
</target>
<target depends="-init-macrodef-testng-debug-impl"
if="${testng.available}" name="-init-macrodef-test-debug-testng">
    <macrodef name="test-debug"
uri="http://www.netbeans.org/ns/j2se-project/3">
        <attribute default="${includes}" name="includes"/>
        <attribute default="${excludes}" name="excludes"/>
        <attribute default="**" name="testincludes"/>
        <attribute default="" name="testmethods"/>
        <attribute default="${main.class}" name="testClass"/>
        <attribute default="" name="testMethod"/>
        <sequential>
            <j2seproject3:testng-debug-impl
testClass="@{testClass}" testMethod="@{testMethod}">
                <customize2>
                    <syspropertyset>
                        <propertyref prefix="test-sys-prop."/>
                        <mapper from="test-sys-prop.*" to="*"
type="glob"/>
                    </syspropertyset>
                </customize2>
            </j2seproject3:testng-debug-impl>
        </sequential>
    </macrodef>
</target>
<target
depends="-init-macrodef-test-debug-junit,-init-macrodef-test-debug-tes
tng" name="-init-macrodef-test-debug"/>
<!--
    pre NB7.2 profiling section; consider it deprecated
-->
<target depends="-profile-pre-init, init, -profile-post-init,
-profile-init-macrodef-profile, -profile-init-check"
if="profiler.info.jvmargs.agent" name="profile-init"/>

```

```

<target if="profiler.info.jvmargs.agent" name="-profile-pre-init">
    <!-- Empty placeholder for easier customization. -->
    <!-- You can override this target in the ../build.xml file.
-->
</target>
<target if="profiler.info.jvmargs.agent"
name="-profile-post-init">
    <!-- Empty placeholder for easier customization. -->
    <!-- You can override this target in the ../build.xml file.
-->
</target>
<target if="profiler.info.jvmargs.agent"
name="-profile-init-macrodef-profile">
    <macrodef name="resolve">
        <attribute name="name"/>
        <attribute name="value"/>
        <sequential>
            <property name="@{name}" value="${env.@{value}}"/>
        </sequential>
    </macrodef>
    <macrodef name="profile">
        <attribute default="${main.class}" name="classname"/>
        <element name="customize" optional="true"/>
        <sequential>
            <property environment="env"/>
            <resolve name="profiler.current.path"
value="${profiler.info.pathvar}"/>
            <java classname="@{classname}"
dir="${profiler.info.dir}" failonerror="${java.failonerror}"
fork="true" jvm="${profiler.info.jvm}">
                <jvmarg
line="${endorsed.classpath.cmd.line.arg}"/>
                <jvmarg value="${profiler.info.jvmargs.agent}"/>
                <jvmarg line="${profiler.info.jvmargs}"/>
                <env key="${profiler.info.pathvar}">
path="${profiler.info.agentpath}:${profiler.current.path}"/>
                <arg line="${application.args}"/>
                <classpath>
                    <path path="${run.classpath}"/>
                </classpath>
                <syspropertyset>
                    <propertyref prefix="run-sys-prop."/>
                    <mapper from="run-sys-prop.*" to="*"
type="glob"/>
                </syspropertyset>

```

```

                <customize/>
            </java>
        </sequential>
    </macrodef>
</target>
<target depends="-profile-pre-init, init, -profile-post-init,
-profile-init-macrodef-profile" if="profiler.info.jvmargs.agent"
name="-profile-init-check">
    <fail unless="profiler.info.jvm">Must set JVM to use for
profiling in profiler.info.jvm</fail>
    <fail unless="profiler.info.jvmargs.agent">Must set profiler
agent JVM arguments in profiler.info.jvmargs.agent</fail>
</target>
<!--
        end of pre NB7.2 profiling section
-->
<target depends="-init-debug-args" name="-init-macrodef-nbjpda">
    <macrodef name="nbjpdastart"
uri="http://www.netbeans.org/ns/j2se-project/1">
        <attribute default="${main.class}" name="name"/>
        <attribute default="${debug.modulepath}"
name="modulepath"/>
        <attribute default="${debug.classpath}" name="classpath"/>
        <attribute default="" name="stopclassname"/>
        <sequential>
            <nbjpdastart addressproperty="jpda.address"
name="@{name}" stopclassname="@{stopclassname}"
transport="${debug-transport}">
                <modulepath>
                    <path path="@{modulepath}"/>
                </modulepath>
                <classpath>
                    <path path="@{classpath}"/>
                </classpath>
            </nbjpdastart>
        </sequential>
    </macrodef>
    <macrodef name="nbjpdareload"
uri="http://www.netbeans.org/ns/j2se-project/1">
        <attribute default="${build.classes.dir}" name="dir"/>
        <sequential>
            <nbjpdareload>
                <fileset dir="@{dir}" includes="${fix.classes}">
                    <include name="${fix.includes}*.class"/>
                </fileset>

```

```

        </nbjpdareload>
    </sequential>
</macrodef>
</target>
<target name="-init-debug-args">
    <condition else="dt_socket" property="debug-transport-by-os"
value="dt_shmem">
        <os family="windows"/>
    </condition>
    <condition else="${debug-transport-by-os}">
        property="debug-transport" value="${debug.transport}">
            <isset property="debug.transport"/>
    </condition>
</target>
<target depends="-init-debug-args" name="-init-macrodef-debug">
    <macrodef name="debug"
uri="http://www.netbeans.org/ns/j2se-project/3">
        <attribute default="${module.name}" name="modulename"/>
        <attribute default="${main.class}" name="classname"/>
        <attribute default="${debug.modulepath}">
name="modulepath"/>
        <attribute default="${debug.classpath}" name="classpath"/>
        <element name="customizeDebuggee" optional="true"/>
        <sequential>
            <j2seproject1:java classname="@{classname}"
classpath="@{classpath}" modulename="@{modulename}"
modulepath="@{modulepath}">
                <customize>
                    <jvmarg
value="-agentlib:jdwp=transport=${debug-transport},address=${jpda.address}"/>
                    <customizeDebuggee/>
                </customize>
            </j2seproject1:java>
        </sequential>
    </macrodef>
</target>
<target depends="-init-source-module-properties"
if="named.module.internal" name="-init-macrodef-java-with-module">
    <macrodef name="java"
uri="http://www.netbeans.org/ns/j2se-project/1">
        <attribute default="${module.name}" name="modulename"/>
        <attribute default="${main.class}" name="classname"/>
        <attribute default="${run.modulepath}" name="modulepath"/>

```

```

<attribute default="${run.upgrademodulepath}"
name="upgrademodulepath"/>
    <attribute default="${run.classpath}" name="classpath"/>
    <attribute default="jvm" name="jvm"/>
    <element name="customize" optional="true"/>
    <sequential>
        <java classname="@{classname}" dir="${work.dir}"
failonerror="${java.failonerror}" fork="true" module="@{modulename}">
            <classpath>
                <path path="@{classpath}"/>
            </classpath>
            <modulepath>
                <pathelement path="@{modulepath}"/>
                <pathelement
location="${module.build.classes.dir}"/>
            </modulepath>
            <upgrademodulepath>
                <path path="@{upgrademodulepath}"/>
            </upgrademodulepath>
            <jvmarg
value="-Dfile.encoding=${runtime.encoding}"/>
            <redirector erroreencoding="${runtime.encoding}"
inputencoding="${runtime.encoding}"
outputencoding="${runtime.encoding}"/>
                <jvmarg line="${run.jvmargs}"/>
                <jvmarg line="${run.jvmargs.ide}"/>
            <syspropertyset>
                <propertyref prefix="run-sys-prop."/>
                <mapper from="run-sys-prop.*" to="*"
type="glob"/>
            </syspropertyset>
            <customize/>
        </java>
    </sequential>
</macrodef>
</target>
<target depends="-init-source-module-properties"
if="unnamed.module.internal"
name="-init-macrodef-java-with-unnamed-module">
    <macrodef name="java"
uri="http://www.netbeans.org/ns/j2se-project/1">
        <attribute default="" name="modulename"/>
        <attribute default="${main.class}" name="classname"/>
        <attribute default="${run.modulepath}" name="modulepath"/>

```

```

<attribute default="${run.upgrademodulepath}"
name="upgrademodulepath"/>
    <attribute default="${run.classpath}" name="classpath"/>
    <attribute default="jvm" name="jvm"/>
    <element name="customize" optional="true"/>
    <sequential>
        <java classname="@{classname}" dir="${work.dir}"
failonerror="${java.failonerror}" fork="true">
            <classpath>
                <path path="@{classpath}"/>
            </classpath>
            <modulepath>
                <path path="@{modulepath}"/>
            </modulepath>
            <upgrademodulepath>
                <path path="@{upgrademodulepath}"/>
            </upgrademodulepath>
            <jvmarg
value="-Dfile.encoding=${runtime.encoding}"/>
                <redirector erroreencoding="${runtime.encoding}"
inputencoding="${runtime.encoding}"
outputencoding="${runtime.encoding}"/>
                    <jvmarg line="${run.jvmargs}"/>
                    <jvmarg line="${run.jvmargs.ide}"/>
                    <syspropertyset>
                        <propertyref prefix="run-sys-prop."/>
                        <mapper from="run-sys-prop.*" to="*"
type="glob"/>
                            </syspropertyset>
                            <customize/>
                        </java>
                    </sequential>
                </macrodef>
            </target>
            <target depends="-init-source-module-properties"
name="-init-macrodef-java-without-module"
unless="modules.supported.internal">
                <macrodef name="java"
uri="http://www.netbeans.org/ns/j2se-project/1">
                    <attribute default="" name="modulename"/>
                    <attribute default="${main.class}" name="classname"/>
                    <attribute default="" name="modulepath"/>
                    <attribute default="${run.classpath}" name="classpath"/>
                    <attribute default="jvm" name="jvm"/>
                    <element name="customize" optional="true"/>

```

```

<sequential>
    <java classname="@{classname}" dir="${work.dir}"
failonerror="${java.failonerror}" fork="true">
        <jvmarg
line="${endorsed.classpath.cmd.line.arg}"/>
        <jvmarg
value="-Dfile.encoding=${runtime.encoding}"/>
        <redirector erroreencoding="${runtime.encoding}"
inputencoding="${runtime.encoding}"
outputencoding="${runtime.encoding}"/>
        <jvmarg line="${run.jvmargs}"/>
        <jvmarg line="${run.jvmargs.ide}"/>
        <classpath>
            <path path="@{classpath}"/>
        </classpath>
        <syspropertyset>
            <propertyref prefix="run-sys-prop."/>
            <mapper from="run-sys-prop.*" to="*"
type="glob"/>
            </syspropertyset>
            <customize/>
        </java>
    </sequential>
</macrodef>
</target>
<target depends="-init-macrodef-java-with-module,
-init-macrodef-java-with-unnamed-module,
-init-macrodef-java-without-module" name="-init-macrodef-java"/>
<target name="-init-macrodef-copylibs">
    <macrodef name="copylibs"
uri="http://www.netbeans.org/ns/j2se-project/3">
        <attribute default="${manifest.file}" name="manifest"/>
        <element name="customize" optional="true"/>
        <sequential>
            <property location="${build.classes.dir}"
name="build.classes.dir.resolved"/>
            <pathconvert
property="run.classpath.without.build.classes.dir">
                <path path="${run.classpath}"/>
                <map from="${build.classes.dir.resolved}" to="" />
            </pathconvert>
            <pathconvert pathsep=" " property="jar.classpath">
                <path
path="${run.classpath.without.build.classes.dir}"/>
                <chainedmapper>

```

```

        <flattenmapper/>
        <filtermapper>
            <replacestring from="" to="%20"/>
        </filtermapper>
        <globmapper from="*" to="lib/*"/>
    </chainedmapper>
</pathconvert>
<taskdef
classname="org.netbeans.modules.java.j2seproject.copylibstask.CopyLibs"
classpath="${libs.CopyLibs.classpath}" name="copylibs">
    <copylibs compress="${jar.compress}"
excludeFromCopy="${copylibs.excludes}" index="${jar.index}"
indexMetaInf="${jar.index.metainf}" jarfile="${dist.jar}"
manifest="@{manifest}" manifestencoding="UTF-8"
rebase="${copylibs.rebase}"
runtimeclasspath="${run.classpath.without.build.classes.dir}">
        <fileset dir="${build.classes.dir}">
excludes="${dist.archive.excludes}">
        <manifest>
            <attribute name="Class-Path"
value="${jar.classpath}"/>
            <customize/>
        </manifest>
    </copylibs>
</sequential>
</macrodef>
</target>
<target name="-init-presetdef-jar">
    <presetdef name="jar"
uri="http://www.netbeans.org/ns/j2se-project/1">
        <jar compress="${jar.compress}" index="${jar.index}"
jarfile="${dist.jar}" manifestencoding="UTF-8">
            <j2seproject1:fileset dir="${build.classes.dir}">
excludes="${dist.archive.excludes}">
        </jar>
    </presetdef>
</target>
<target name="-init-ap-cmdline-properties">
    <property name="annotation.processing.enabled" value="true"/>
    <property name="annotation.processingprocessors.list"
value="" />
    <property name="annotation.processing.processor.options"
value="" />
    <property name="annotation.processing.run.allprocessors"
value="true" />

```

```

        <property name="javac.processorpath"
value="\${javac.classpath}"/>
        <property name="javac.test.processorpath"
value="\${javac.test.classpath}"/>
        <condition property="ap.supported.internal" value="true">
            <not>
                <matches pattern="1\.[0-5](\..*)?">
string="\${javac.source}"/>
            </not>
        </condition>
    </target>
    <target depends="-init-ap-cmdline-properties"
if="ap.supported.internal" name="-init-ap-cmdline-supported">
        <condition else="" property="ap.processors.internal"
value="-processor \$annotationprocessingprocessorslist">
            <isfalse
value="\${annotationprocessingrunallprocessors}"/>
        </condition>
        <condition else="" property="ap.proc.none.internal"
value="-proc:none">
            <isfalse value="\${annotationprocessingenabled}"/>
        </condition>
    </target>
    <target
depends="-init-ap-cmdline-properties,-init-ap-cmdline-supported"
name="-init-ap-cmdline">
        <property name="ap.cmd.line.internal" value="" />
    </target>
    <target
depends="-pre-init,-init-private,-init-user,-init-project,-do-init,-po
st-init,-init-check,-init-macrodef-property,-init-macrodef-javac,-init
-macrodef-test,-init-macrodef-test-debug,-init-macrodef-nbjpda,-init-m
acrodef-debug,-init-macrodef-java,-init-presetdef-jar,-init-ap-cmdline
" name="init"/>
    <!--
        =====
        COMPILATION SECTION
        =====
    -->
    <target name="-deps-jar-init" unless="built-jar.properties">
        <property location="\${build.dir}/built-jar.properties"
name="built-jar.properties"/>
        <delete file="\${built-jar.properties}" quiet="true"/>
    </target>

```

```

<target if="already.built.jar.${basedir}"
name="-warn-already-built-jar">
    <echo level="warn" message="Cycle detected: TamaGui was
already built"/>
</target>
<target depends="init,-deps-jar-init" name="deps-jar"
unless="no.deps">
    <mkdir dir="${build.dir}" />
    <touch file="${built-jar.properties}" verbose="false" />
    <property file="${built-jar.properties}"
prefix="already.built.jar." />
    <antcall target="-warn-already-built-jar" />
    <propertyfile file="${built-jar.properties}">
        <entry key="${basedir}" value="" />
    </propertyfile>
</target>
<target
depends="init,-check-automatic-build,-clean-after-automatic-build"
name="-verify-automatic-build" />
<target depends="init" name="-check-automatic-build">
    <available
file="${build.classes.dir}/.netbeans_automatic_build"
property="netbeans.automatic.build" />
</target>
<target depends="init" if="netbeans.automatic.build"
name="-clean-after-automatic-build" />
    <antcall target="clean">
        <param name="no.dependencies" value="true" />
    </antcall>
</target>
<target depends="init,deps-jar" name="-pre-pre-compile">
    <mkdir dir="${build.classes.dir}" />
</target>
<target name="-pre-compile">
    <!-- Empty placeholder for easier customization. -->
    <!-- You can override this target in the ../build.xml file.
-->
</target>
<target if="do.depend.true" name="-compile-depend">
    <pathconvert property="build.generated.subdirs">
        <dirset dir="${build.generated.sources.dir}"
erroronmissingdir="false">
            <include name="*" />
        </dirset>
    </pathconvert>

```

```

        <j2seproject3:depend
srcdir="${src.dir}:${build.generated.subdirs}"/>
    </target>
    <target depends="init,deps-jar,-pre-pre-compile,-pre-compile,
-copy-persistence-xml,-compile-depend" if="have.sources"
name="-do-compile">
        <j2seproject3:javac
gensrcdir="${build.generated.sources.dir}"/>
        <copy todir="${build.classes.dir}">
            <fileset dir="${src.dir}"
excludes="${build.classes.excludes},${excludes}"
includes="${includes}"/>
        </copy>
    </target>
    <target if="has.persistence.xml" name="-copy-persistence-xml">
        <mkdir dir="${build.classes.dir}/META-INF"/>
        <copy todir="${build.classes.dir}/META-INF">
            <fileset dir="${meta.inf.dir}" includes="persistence.xml
orm.xml"/>
        </copy>
    </target>
    <target name="-post-compile">
        <!-- Empty placeholder for easier customization. -->
        <!-- You can override this target in the ../build.xml file.
-->
        </target>
        <target
depends="init,deps-jar,-verify-automatic-build,-pre-pre-compile,-pre-
compile,-do-compile,-post-compile" description="Compile project."
name="compile"/>
        <target name="-pre-compile-single">
            <!-- Empty placeholder for easier customization. -->
            <!-- You can override this target in the ../build.xml file.
-->
            </target>
            <target depends="init,deps-jar,-pre-pre-compile"
name="-do-compile-single">
                <fail unless="javac.includes">Must select some files in the
IDE or set javac.includes</fail>
                <j2seproject3:force-recompile/>
                <j2seproject3:javac excludes=""
gensrcdir="${build.generated.sources.dir}"
includes="${javac.includes}, module-info.java"
sourcepath="${src.dir}"/>
            </target>

```

```

<target name="-post-compile-single">
    <!-- Empty placeholder for easier customization. -->
    <!-- You can override this target in the ../build.xml file.
-->
</target>
<target
depends="init,deps-jar,-verify-automatic-build,-pre-pre-compile,-pre-compile-single,-do-compile-single,-post-compile-single"
name="compile-single"/>
<!--
=====
JAR BUILDING SECTION
=====
-->
<target depends="init" name="-pre-pre-jar">
    <dirname file="${dist.jar}" property="dist.jar.dir"/>
    <mkdir dir="${dist.jar.dir}" />
</target>
<target name="-pre-jar">
    <!-- Empty placeholder for easier customization. -->
    <!-- You can override this target in the ../build.xml file.
-->
</target>
<target depends="init,compile" name="-check-module-main-class">
    <pathconvert property="main.class.file">
        <string value="${main.class}" />
        <unpackagemapper from="*" to="*.class" />
    </pathconvert>
    <condition property="do.module.main.class">
        <and>
            <isset property="main.class.available" />
            <available
file ="${build.classes.dir}/module-info.class" />
            <available
file ="${build.classes.dir}/${main.class.file}" />
                <isset property="libs.CopyLibs.classpath" />
                <available
classname="org.netbeans.modules.java.j2seproject.moduletask.ModuleMain
Class" classpath ="${libs.CopyLibs.classpath}" />
            </and>
        </condition>
    </target>
    <target depends="-check-module-main-class"
if="do.module.main.class" name="-set-module-main-class">

```

```

        <taskdef
classname="org.netbeans.modules.java.j2seproject.moduletask.ModuleMain
Class" classpath="${libs.CopyLibs.classpath}" name="modulemainclass"/>
            <modulemainclass failonerror="false" mainclass="${main.class}"
moduleinfo="${build.classes.dir}/module-info.class"/>
        </target>
        <target depends="init" if="do.archive"
name="-do-jar-create-manifest" unless="manifest.available">
            < tempfile deleteonexit="true" destdir="${build.dir}"
property="tmp.manifest.file"/>
            <touch file="${tmp.manifest.file}" verbose="false"/>
        </target>
        <target depends="init" if="do.archive+manifest.available"
name="-do-jar-copy-manifest">
            < tempfile deleteonexit="true" destdir="${build.dir}"
property="tmp.manifest.file"/>
            <copy encoding="${manifest.encoding}" file="${manifest.file}"
outputencoding="UTF-8" tofile="${tmp.manifest.file}"/>
        </target>
        <target
depends="init,-do-jar-create-manifest,-do-jar-copy-manifest"
if="do.archive+main.class.available" name="-do-jar-set-mainclass">
            <manifest encoding="UTF-8" file="${tmp.manifest.file}"
mode="update">
                <attribute name="Main-Class" value="${main.class}"/>
            </manifest>
        </target>
        <target
depends="init,-do-jar-create-manifest,-do-jar-copy-manifest"
if="do.archive+profile.available" name="-do-jar-set-profile">
            <manifest encoding="UTF-8" file="${tmp.manifest.file}"
mode="update">
                <attribute name="Profile" value="${javac.profile}"/>
            </manifest>
        </target>
        <target
depends="init,-do-jar-create-manifest,-do-jar-copy-manifest"
if="do.archive+splashscreen.available"
name="-do-jar-set-splashscreen">
            <basename file="${application.splash}">
property="splashscreen.basename"/>
            <mkdir dir="${build.classes.dir}/META-INF"/>
            <copy failonerror="false" file="${application.splash}"
todir="${build.classes.dir}/META-INF"/>

```

```

        <manifest encoding="UTF-8" file="${tmp.manifest.file}"
mode="update">
            <attribute name="SplashScreen-Image"
value="META-INF/${splashscreen.basename}"/>
        </manifest>
    </target>
<target depends="init,compile" name="-check-do-mkdist">
    <condition property="do.mkdist">
        <and>
            <isset property="do.archive"/>
            <isset property="libs.CopyLibs.classpath"/>
            <not>
                <istrue value="${mkdist.disabled}" />
            </not>
            <not>
                <available
file="${build.classes.dir}/module-info.class"/>
            </not>
        </and>
    </condition>
</target>
<target
depends="init,-init-macrodef-copylibs,compile,-pre-pre-jar,-pre-jar,-d
o-jar-create-manifest,-do-jar-copy-manifest,-do-jar-set-mainclass,-do-
jar-set-profile,-do-jar-set-splashscreen,-check-do-mkdist"
if="do.mkdist" name="-do-jar-copylibs">
    <j2seproject3:copylibs manifest="${tmp.manifest.file}" />
    <echo level="info">To run this application from the command
line without Ant, try:</echo>
    <property location="${dist.jar}" name="dist.jar.resolved"/>
    <echo level="info">java -jar "${dist.jar.resolved}"</echo>
</target>
<target
depends="init,compile,-pre-pre-jar,-pre-jar,-do-jar-create-manifest,-d
o-jar-copy-manifest,-do-jar-set-mainclass,-do-jar-set-profile,-do-jar-
set-splashscreen,-check-do-mkdist" if="do.archive" name="-do-jar-jar"
unless="do.mkdist">
    <j2seproject1:jar manifest="${tmp.manifest.file}" />
    <property location="${build.classes.dir}"
name="build.classes.dir.resolved"/>
    <property location="${dist.jar}" name="dist.jar.resolved"/>
    <condition else="${dist.jar.resolved}">
        <property name="jar.usage.message.class.path.replacement" value="">
            <isset property="named.module.internal"/>
        </property>
    </condition>

```

```

<pathconvert property="run.classpath.with.dist.jar">
    <path path="\${run.classpath}"/>
    <map from="\${build.classes.dir.resolved}"
to="\${jar.usage.message.class.path.replacement}"/>
</pathconvert>
<pathconvert property="run.modulepath.with.dist.jar">
    <path location="\${dist.jar.resolved}"/>
    <path path="\${run.modulepath}"/>
    <map from="\${build.classes.dir.resolved}">
to="\${dist.jar.resolved}"/>
</pathconvert>
<condition else="\${run.modulepath}">
property="jar.usage.message.run.modulepath.with.dist.jar"
value="\${run.modulepath.with.dist.jar}">
    <isset property="named.module.internal"/>
</condition>
<condition else="" property="jar.usage.message.module.path"
value=" -p \${jar.usage.message.run.modulepath.with.dist.jar}">
    <and>
        <isset property="modules.supported.internal"/>
        <length length="0"
string="\${jar.usage.message.run.modulepath.with.dist.jar}">
when="greater"/>
    </and>
</condition>
<condition else="" property="jar.usage.message.class.path"
value=" -cp \${run.classpath.with.dist.jar}">
    <length length="0" string="\${run.classpath.with.dist.jar}">
when="greater"/>
</condition>
<condition else="/\${main.class}">
property="jar.usage.message.main.class.class.selector" value="">
    <isset property="do.module.main.class"/>
</condition>
<condition else=" \${main.class}">
property="jar.usage.message.main.class" value=" -m
\${module.name}\${jar.usage.message.main.class.class.selector}">
    <isset property="named.module.internal"/>
</condition>
<condition else="" property="jar.usage.message" value="To run
this application from the command line without Ant,
try:\${line.separator}\${platform.java}\${jar.usage.message.module.path}\$>
{jar.usage.message.class.path}\${jar.usage.message.main.class}">
    <isset property="main.class.available"/>
</condition>

```

```

        <condition else="debug" property="jar.usage.level"
value="info">
            <isset property="main.class.available"/>
        </condition>
        <echo level="${jar.usage.level}"
message="${jar.usage.message}" />
    </target>
    <target depends="-do-jar-copylibs" if="do.archive"
name="-do-jar-delete-manifest">
        <delete>
            <fileset file="${tmp.manifest.file}" />
        </delete>
    </target>
    <target
depends="init,compile,-pre-pre-jar,-pre-jar,-do-jar-create-manifest,-d
o-jar-copy-manifest,-do-jar-set-mainclass,-do-jar-set-profile,-do-jar-
set-splashscreen,-do-jar-jar,-do-jar-delete-manifest"
name="-do-jar-without-libraries"/>
        <target
depends="init,compile,-pre-pre-jar,-pre-jar,-do-jar-create-manifest,-d
o-jar-copy-manifest,-do-jar-set-mainclass,-do-jar-set-profile,-do-jar-
set-splashscreen,-do-jar-copylibs,-do-jar-delete-manifest"
name="-do-jar-with-libraries"/>
        <target name="-post-jar">
            <!-- Empty placeholder for easier customization. -->
            <!-- You can override this target in the ../build.xml file.
-->
        </target>
        <target
depends="init,compile,-pre-jar,-set-module-main-class,-do-jar-without-
libraries,-do-jar-with-libraries,-post-jar" name="-do-jar"/>
        <target depends="init,compile,-pre-jar,-do-jar,-post-jar,deploy"
description="Build JAR." name="jar"/>
        <!--
            =====
            DEPLOY SECTION
            =====
        -->
        <target name="-pre-deploy">
            <!-- Empty placeholder for easier customization. -->
            <!-- You can override this target in the ../build.xml file.
-->
        </target>
        <target depends="init" name="-check-jlink">
            <condition property="do.jlink.internal">

```

```

<and>
    <istrue value="${do.jlink}" />
    <isset property="do.archive" />
    <isset property="named.module.internal" />
</and>
</condition>
</target>
<target depends="init,-do-jar,-post-jar,-pre-deploy,-check-jlink"
if="do.jlink.internal" name="-do-deploy">
    <delete dir="${dist.jlink.dir}" failonerror="false"
quiet="true" />
    <property name="jlink.launcher.name"
value="${application.title}" />
    <condition else="${module.name}" property="jlink.add.modules"
value="${module.name},${jlink.additionalmodules}">
        <and>
            <isset property="jlink.additionalmodules" />
            <length length="0" string="${jlink.additionalmodules}" when="greater" />
        </and>
    </condition>
    <condition property="jlink.do.strip.internal">
        <and>
            <isset property="jlink.strip" />
            <istrue value="${jlink.strip}" />
        </and>
    </condition>
    <condition property="jlink.do.additionalparam.internal">
        <and>
            <isset property="jlink.additionalparam" />
            <length length="0" string="${jlink.additionalparam}" when="greater" />
        </and>
    </condition>
    <condition property="jlink.do.launcher.internal">
        <and>
            <istrue value="${jlink.launcher}" />
            <isset property="main.class.available" />
        </and>
    </condition>
    <property name="platform.jlink"
value="${jdk.home}/bin/jlink" />
    <property name="jlink.systemmodules.internal"
value="${jdk.home}/jmods" />
    <exec executable="${platform.jlink}">

```

```

        <arg value="--module-path"/>
        <arg
path="${jlink.systemmodules.internal}:${run.modulepath}:${dist.jar}"/>
            <arg value="--add-modules"/>
            <arg value="${jlink.add.modules}"/>
            <arg if:set="jlink.do.strip.internal"
value="--strip-debug"/>
                <arg if:set="jlink.do.launcher.internal"
value="--launcher"/>
                    <arg if:set="jlink.do.launcher.internal"
value="${jlink.launcher.name}=${module.name}/${main.class}"/>
                        <arg if:set="jlink.do.additionalparam.internal"
line="${jlink.additionalparam}"/>
                            <arg value="--output"/>
                            <arg value="${dist.jlink.output}"/>
            </exec>
        </target>
    <target name="-post-deploy">
        <!-- Empty placeholder for easier customization. -->
        <!-- You can override this target in the ../build.xml file.
-->
    </target>
    <target
depends="-do-jar,-post-jar,-pre-deploy,-do-deploy,-post-deploy"
name="deploy"/>
    <!--
        =====
        EXECUTION SECTION
        =====
    -->
    <target depends="init,compile" description="Run a main class."
name="run">
        <j2seproject1:java>
            <customize>
                <arg line="${application.args}"/>
            </customize>
        </j2seproject1:java>
    </target>
    <target name="-do-not-recompile">
        <property name="javac.includes.binary" value="" />
    </target>
    <target depends="init,compile-single" name="run-single">
        <fail unless="run.class">Must select one file in the IDE or
set run.class</fail>
        <j2seproject1:java classname="${run.class}"/>
    
```

```

        </target>
        <target depends="init,compile-test-single"
name="run-test-with-main">
            <fail unless="run.class">Must select one file in the IDE or
set run.class</fail>
            <j2seproject1:java classname="\$\{run.class\}"
classpath="\$\{run.test.classpath\}" />
        </target>
        <!--
        =====
        DEBUGGING SECTION
        =====
        -->
        <target depends="init" if="netbeans.home"
name="-debug-start-debugger">
            <j2seproject1:nbjpdastart name="\$\{debug.class\}" />
        </target>
        <target depends="init" if="netbeans.home"
name="-debug-start-debugger-main-test">
            <j2seproject1:nbjpdastart classpath="\$\{debug.test.classpath\}"
name="\$\{debug.class\}" />
        </target>
        <target depends="init,compile" name="-debug-start-debuggee">
            <j2seproject3:debug>
                <customizeDebuggee>
                    <arg line="\$\{application.args\}" />
                </customizeDebuggee>
            </j2seproject3:debug>
        </target>
        <target
depends="init,compile,-debug-start-debugger,-debug-start-debuggee"
description="Debug project in IDE." if="netbeans.home" name="debug"/>
        <target depends="init" if="netbeans.home"
name="-debug-start-debugger-stepinto">
            <j2seproject1:nbjpdastart stopclassname="\$\{main.class\}" />
        </target>
        <target
depends="init,compile,-debug-start-debugger-stepinto,-debug-start-debu
ggee" if="netbeans.home" name="debug-stepinto"/>
        <target depends="init,compile-single" if="netbeans.home"
name="-debug-start-debuggee-single">
            <fail unless="debug.class">Must select one file in the IDE or
set debug.class</fail>
            <j2seproject3:debug classname="\$\{debug.class\}" />
        </target>

```

```

<target
depends="init,compile-single,-debug-start-debugger,-debug-start-debugg
ee-single" if="netbeans.home" name="debug-single"/>
    <target depends="init,compile-test-single" if="netbeans.home"
name="-debug-start-debuggee-main-test">
        <fail unless="debug.class">Must select one file in the IDE or
set debug.class</fail>
        <j2seproject3:debug classname="${debug.class}"
classpath="${debug.test.classpath}" />
    </target>
    <target
depends="init,compile-test-single,-debug-start-debugger-main-test,-deb
ug-start-debuggee-main-test" if="netbeans.home"
name="debug-test-with-main"/>
        <target depends="init" name="-pre-debug-fix">
            <fail unless="fix.includes">Must set fix.includes</fail>
            <property name="javac.includes" value="${fix.includes}.java"/>
        </target>
        <target depends="init,-pre-debug-fix,compile-single"
if="netbeans.home" name="-do-debug-fix">
            <j2seproject1:nbjpdareload/>
        </target>
        <target depends="init,-pre-debug-fix,-do-debug-fix"
if="netbeans.home" name="debug-fix"/>
    <!--
        =====
        PROFILING SECTION
        =====
        -->
    <!--
        pre NB7.2 profiler integration
        -->
    <target depends="profile-init,compile" description="Profile a
project in the IDE." if="profiler.info.jvmargs.agent"
name="-profile-pre72">
        <fail unless="netbeans.home">This target only works when run
from inside the NetBeans IDE.</fail>
        <nbprofiledirect>
            <classpath>
                <path path="${run.classpath}" />
            </classpath>
        </nbprofiledirect>
        <profile/>
    </target>

```

```

<target depends="profile-init,compile-single" description="Profile
a selected class in the IDE." if="profiler.info.jvmargs.agent"
name="-profile-single-pre72">
    <fail unless="profile.class">Must select one file in the IDE
or set profile.class</fail>
    <fail unless="netbeans.home">This target only works when run
from inside the NetBeans IDE.</fail>
    <nbprofiledirect>
        <classpath>
            <path path="${run.classpath}"/>
        </classpath>
    </nbprofiledirect>
    <profile classname="${profile.class}"/>
</target>
<target depends="profile-init,compile-single"
if="profiler.info.jvmargs.agent" name="-profile-applet-pre72">
    <fail unless="netbeans.home">This target only works when run
from inside the NetBeans IDE.</fail>
    <nbprofiledirect>
        <classpath>
            <path path="${run.classpath}"/>
        </classpath>
    </nbprofiledirect>
    <profile classname="sun.applet.AppletViewer">
        <customize>
            <arg value="${applet.url}"/>
        </customize>
    </profile>
</target>
<target
depends="-init-macrodef-junit,profile-init,compile-test-single"
if="profiler.info.jvmargs.agent" name="-profile-test-single-pre72">
    <fail unless="netbeans.home">This target only works when run
from inside the NetBeans IDE.</fail>
    <nbprofiledirect>
        <classpath>
            <path path="${run.test.classpath}"/>
        </classpath>
    </nbprofiledirect>
    <j2seproject3:junit excludes="${excludes}"
includes="${includes}" testincludes="${profile.class}" testmethods="">
        <customize>
            <jvmarg
value="-agentlib:jdwp=transport=${debug-transport},address=${jpda.address}"/>

```

```

        <env key="${profiler.info.pathvar}"
path="${profiler.info.agentpath}:${profiler.current.path}"/>
        <jvmarg value="${profiler.info.jvmargs.agent}"/>
        <jvmarg line="${profiler.info.jvmargs}"/>
        <classpath>
            <path path="${run.test.classpath}"/>
        </classpath>
    </customize>
</j2seproject3:junit>
</target>
<!--
        end of pre NB72 profiling section
-->
<target if="netbeans.home" name="-profile-check">
    <condition property="profiler.configured">
        <or>
            <contains casesensitive="true"
string="${run.jvmargs.ide}" substring="-agentpath:"/>
            <contains casesensitive="true"
string="${run.jvmargs.ide}" substring="-javaagent:"/>
        </or>
    </condition>
</target>
<target depends="-profile-check,-profile-pre72"
description="Profile a project in the IDE." if="profiler.configured"
name="profile" unless="profiler.info.jvmargs.agent">
    <startprofiler/>
    <antcall target="run"/>
</target>
<target depends="-profile-check,-profile-single-pre72"
description="Profile a selected class in the IDE."
if="profiler.configured" name="profile-single"
unless="profiler.info.jvmargs.agent">
    <fail unless="run.class">Must select one file in the IDE or
set run.class</fail>
    <startprofiler/>
    <antcall target="run-single"/>
</target>
<target depends="-profile-test-single-pre72" description="Profile
a selected test in the IDE." name="profile-test-single"/>
<target depends="-profile-check" description="Profile a selected
test in the IDE." if="profiler.configured" name="profile-test"
unless="profiler.info.jvmargs">
    <fail unless="test.includes">Must select some files in the IDE
or set test.includes</fail>

```

```

        <startprofiler/>
        <antcall target="test-single"/>
    </target>
    <target depends="-profile-check" description="Profile a selected
class in the IDE." if="profiler.configured"
name="profile-test-with-main">
        <fail unless="run.class">Must select one file in the IDE or
set run.class</fail>
        <startprofiler/>
        <antcall target="run-test-with-main"/>
    </target>
    <target depends="-profile-check,-profile-applet-pre72"
if="profiler.configured" name="profile-applet"
unless="profiler.info.jvmargs.agent">
        <fail unless="applet.url">Must select one file in the IDE or
set applet.url</fail>
        <startprofiler/>
        <antcall target="run-applet"/>
    </target>
<!--
=====
JAVADOC SECTION
=====
-->
<target depends="init" if="have.sources" name="-javadoc-build">
    <mkdir dir="${dist.javadoc.dir}" />
    <condition else="">
property="javadoc.endorsed.classpath.cmd.line.arg"
value="-J${endorsed.classpath.cmd.line.arg}">
        <and>
            <isset property="endorsed.classpath.cmd.line.arg"/>
        <not>
            <equals arg1="${endorsed.classpath.cmd.line.arg}">
arg2="" />
            </not>
        </and>
    </condition>
    <condition else="" property="bug5101868workaround"
value="*.java">
        <matches pattern="1\.[56](\..*)?">
string="${java.version}" />
        </condition>
        <condition else="" property="javadoc.html5.cmd.line.arg"
value="-html5">
        <and>

```

```

        <isset property="javadoc.html5"/>
        <available
file="${jdk.home}${file.separator}lib${file.separator}jrt-fs.jar"/>
        </and>
    </condition>
    <javadoc additionalparam="-J-Dfile.encoding=${file.encoding}
${javadoc.additionalparam}" author="${javadoc.author}" charset="UTF-8"
destdir="${dist.javadoc.dir}" docencoding="UTF-8"
encoding="${javadoc.encoding.used}" failonerror="true"
noindex="${javadoc.noindex}" nonavbar="${javadoc.nonavbar}"
notree="${javadoc.notree}" private="${javadoc.private}"
source="${javac.source}" splitindex="${javadoc.splitindex}"
use="${javadoc.use}" useexternalfile="true"
version="${javadoc.version}" windowtitle="${javadoc.windowtitle}">
        <classpath>
            <path path="${javac.classpath}" />
        </classpath>
        <fileset dir="${src.dir}">
excludes="${bug5101868workaround}, ${excludes}" includes="${includes}">
            <filename name="**/*.java"/>
        </fileset>
        <fileset dir="${build.generated.sources.dir}">
erroronmissingdir="false">
            <include name="**/*.java"/>
            <exclude name="*.java"/>
        </fileset>
        <arg line="${javadoc.endorsed.classpath.cmd.line.arg}" />
        <arg line="${javadoc.html5.cmd.line.arg}" />
    </javadoc>
    <copytodir="${dist.javadoc.dir}">
        <fileset dir="${src.dir}" excludes="${excludes}">
includes="${includes}">
            <filename name="**/doc-files/**"/>
        </fileset>
        <fileset dir="${build.generated.sources.dir}">
erroronmissingdir="false">
            <include name="**/doc-files/**"/>
        </fileset>
    </copy>
</target>
<target depends="init,-javadoc-build" if="netbeans.home"
name="-javadoc-browse" unless="no.javadoc.preview">
    <nbbrowse file="${dist.javadoc.dir}/index.html" />
</target>

```

```

<target depends="init,-javadoc-build,-javadoc-browse"
description="Build Javadoc." name="javadoc"/>
<!--
=====
TEST COMPILATION SECTION
=====
-->
<target depends="init,compile" if="have.tests"
name="-pre-pre-compile-test">
    <mkdir dir="${build.test.classes.dir}" />
</target>
<target name="-pre-compile-test">
    <!-- Empty placeholder for easier customization. -->
    <!-- You can override this target in the ../build.xml file.
-->
</target>
<target depends="-init-source-module-properties"
if="named.module.internal"
name="-init-test-javac-module-properties-with-module">
    <j2seproject3:modulename property="test.module.name"
sourcepath="${test.src.dir}" />
    <condition else="${empty.dir}"
property="javac.test.sourcepath" value="${test.src.dir}">
        <and>
            <isset property="test.module.name" />
            <length length="0" string="${test.module.name}">
when="greater" />
        </and>
    </condition>
    <condition else="--patch-module ${module.name}=${test.src.dir}
--add-reads ${module.name}=ALL-UNNAMED"
property="javac.test.compilerargs" value="--add-reads
${test.module.name}=ALL-UNNAMED" />
        <and>
            <isset property="test.module.name" />
            <length length="0" string="${test.module.name}">
when="greater" />
        </and>
    </condition>
</target>
<target depends="-init-source-module-properties"
if="named.module.internal" name="-init-test-run-module-properties">
    <condition else="${module.name}"
property="run.test.addexport.source.module.internal"
value="${test.module.name}" />

```

```

        <and>
            <isset property="test.module.name"/>
            <length length="0" string="\${test.module.name}">
when="greater"/>
        </and>
    </condition>
    <fileset dir="\${build.test.classes.dir}"
id="run.test.packages.internal" includes="**/*.class"/>
    <property location="\${build.test.classes.dir}">
name="build.test.classes.dir.abs.internal"/>
        <pathconvert pathsep=" "
property="run.test.addexports.internal"
refid="run.test.packages.internal">
        <chainedmapper>
            <regexpmapper
from="^(.*)\Q\${file.separator}\E.*\.class\$" to="\1"/>
            <filtermapper>
                <uniqfilter/>
                <replacestring
from="\${build.test.classes.dir.abs.internal}" to="" />
            </filtermapper>
            <cutdirsmapper dirs="1"/>
            <packagemapper from="*" to="--add-exports
\${run.test.addexport.source.module.internal}/*=ALL-UNNAMED"/>
        </chainedmapper>
    </pathconvert>
    <condition else="--patch-module
\${module.name}=\${build.test.classes.dir} --add-modules \${module.name}
--add-reads \${module.name}=ALL-UNNAMED
\${run.test.addexports.internal}" property="run.test.jvmargs"
value="--add-modules \${test.module.name} --add-reads
\${test.module.name}=ALL-UNNAMED \${run.test.addexports.internal}">
        <and>
            <isset property="test.module.name"/>
            <length length="0" string="\${test.module.name}">
when="greater"/>
        </and>
    </condition>
</target>
<target depends="-init-source-module-properties"
name="-init-test-module-properties-without-module"
unless="named.module.internal">
    <property name="javac.test.sourcepath" value="\${empty.dir}"/>
    <property name="javac.test.compilerargs" value="" />
    <property name="run.test.jvmargs" value="" />

```

```

        </target>
        <target
depends="-init-test-javac-module-properties-with-module,-init-test-mod
ule-properties-without-module" name="-init-test-module-properties"/>
        <target if="do.depend.true" name="-compile-test-depend">
            <j2seproject3:depend classpath="${javac.test.classpath}">
destdir="${build.test.classes.dir}" srcdir="${test.src.dir}"/>
        </target>
        <target
depends="init,deps-jar,compile,-init-test-module-properties,-pre-pre-c
ompile-test,-pre-compile-test,-compile-test-depend" if="have.tests"
name="-do-compile-test">
            <j2seproject3:javac
apgeneratedsrcdir="${build.test.classes.dir}"
classpath="${javac.test.classpath}" debug="true"
destdir="${build.test.classes.dir}"
modulepath="${javac.test.modulepath}"
processorpath="${javac.test.processorpath}"
sourcepath="${javac.test.sourcepath}" srcdir="${test.src.dir}">
            <customize>
                <compilerarg line="${javac.test.compilerargs}"/>
            </customize>
            </j2seproject3:javac>
            <copy todir="${build.test.classes.dir}">
                <fileset dir="${test.src.dir}">
excludes="${build.classes.excludes},${excludes}"
includes="${includes}"/>
                </copy>
            </target>
            <target name="-post-compile-test">
                <!-- Empty placeholder for easier customization. -->
                <!-- You can override this target in the ../build.xml file.
-->
            </target>
            <target
depends="init,compile,-pre-pre-compile-test,-pre-compile-test,-do-comp
ile-test,-post-compile-test" name="compile-test"/>
            <target name="-pre-compile-test-single">
                <!-- Empty placeholder for easier customization. -->
                <!-- You can override this target in the ../build.xml file.
-->
            </target>
            <target
depends="init,deps-jar,compile,-init-test-module-properties,-pre-pre-c

```

```

        ompile-test,-pre-compile-test-single" if="have.tests"
name="-do-compile-test-single">
    <fail unless="javac.includes">Must select some files in the
IDE or set javac.includes</fail>
    <j2seproject3:force-recompile
destdir="${build.test.classes.dir}">
        <j2seproject3:javac
apgeneratedsrcdir="${build.test.classes.dir}"
classpath="${javac.test.classpath}" debug="true"
destdir="${build.test.classes.dir}" excludes=""
includes="${javac.includes}, module-info.java"
modulepath="${javac.test.modulepath}"
processorpath="${javac.test.processorpath}"
sourcepath="${test.src.dir}" srcdir="${test.src.dir}">
        <customize>
            <compilerarg line="${javac.test.compilerargs}" />
        </customize>
    </j2seproject3:javac>
    <copy todir="${build.test.classes.dir}">
        <fileset dir="${test.src.dir}"
excludes="${build.classes.excludes},${excludes}"
includes="${includes}" />
    </copy>
</target>
<target name="-post-compile-test-single">
    <!-- Empty placeholder for easier customization. -->
    <!-- You can override this target in the ../build.xml file.
-->
    </target>
    <target
depends="init,compile,-pre-pre-compile-test,-pre-compile-test-single,-
do-compile-test-single,-post-compile-test-single"
name="compile-test-single">
    <!--
        =====
        TEST EXECUTION SECTION
        =====
    -->
    <target depends="init" if="have.tests" name="-pre-test-run">
        <mkdir dir="${build.test.results.dir}" />
    </target>
    <target
depends="init,compile-test,-init-test-run-module-properties,-pre-test-
run" if="have.tests" name="-do-test-run">

```

```

        <j2seproject3:test includes="${includes}"
testincludes="**/*Test.java"/>
    </target>
    <target depends="init,compile-test,-pre-test-run,-do-test-run"
if="have.tests" name="-post-test-run">
        <fail if="tests.failed" unless="ignore.failing.tests">Some
tests failed; see details above.</fail>
    </target>
    <target depends="init" if="have.tests" name="test-report"/>
    <target depends="init" if="netbeans.home+have.tests"
name="-test-browse"/>
    <target
depends="init,compile-test,-pre-test-run,-do-test-run,test-report,-pos
t-test-run,-test-browse" description="Run unit tests." name="test"/>
        <target depends="init" if="have.tests"
name="-pre-test-run-single">
            <mkdir dir="${build.test.results.dir}" />
        </target>
        <target
depends="init,compile-test-single,-init-test-run-module-properties,-pr
e-test-run-single" if="have.tests" name="-do-test-run-single">
            <fail unless="test.includes">Must select some files in the IDE
or set test.includes</fail>
            <j2seproject3:test excludes="" includes="${test.includes}"
testincludes="${test.includes}" />
        </target>
        <target
depends="init,compile-test-single,-pre-test-run-single,-do-test-run-si
ngle" if="have.tests" name="-post-test-run-single">
            <fail if="tests.failed" unless="ignore.failing.tests">Some
tests failed; see details above.</fail>
        </target>
        <target
depends="init,compile-test-single,-init-test-run-module-properties,-pr
e-test-run-single,-do-test-run-single,-post-test-run-single"
description="Run single unit test." name="test-single"/>
            <target depends="init,compile-test-single,-pre-test-run-single"
if="have.tests" name="-do-test-run-single-method">
                <fail unless="test.class">Must select some files in the IDE or
set test.class</fail>
                <fail unless="test.method">Must select some method in the IDE
or set test.method</fail>
            <j2seproject3:test excludes="" includes="${javac.includes}"
testincludes="${test.class}" testmethods="${test.method}" />
        </target>

```

```

<target
depends="init,compile-test-single,-pre-test-run-single,-do-test-run-single-method" if="have.tests" name="-post-test-run-single-method">
    <fail if="tests.failed" unless="ignore.failing.tests">Some
tests failed; see details above.</fail>
</target>
<target
depends="init,compile-test-single,-init-test-run-module-properties,-pre-test-run-single,-do-test-run-single-method,-post-test-run-single-method" description="Run single unit test." name="test-single-method"/>
<!--
=====
TEST DEBUGGING SECTION
=====
-->
<target depends="init,compile-test-single,-pre-test-run-single"
if="have.tests" name="-debug-start-debuggee-test">
    <fail unless="test.class">Must select one file in the IDE or
set test.class</fail>
    <j2seproject3:test-debug excludes=""
includes="${javac.includes}" testClass="${test.class}"
testincludes="${javac.includes}"/>
</target>
<target depends="init,compile-test-single,-pre-test-run-single"
if="have.tests" name="-debug-start-debuggee-test-method">
    <fail unless="test.class">Must select one file in the IDE or
set test.class</fail>
    <fail unless="test.method">Must select some method in the IDE
or set test.method</fail>
    <j2seproject3:test-debug excludes=""
includes="${javac.includes}" testClass="${test.class}"
testMethod="${test.method}" testincludes="${test.class}"
testmethods="${test.method}"/>
</target>
<target depends="init,compile-test" if="netbeans.home+have.tests"
name="-debug-start-debugger-test">
    <j2seproject1:nbjpdastart classpath="${debug.test.classpath}"
name="${test.class}"/>
</target>
<target
depends="init,compile-test-single,-init-test-run-module-properties,-debug-start-debugger-test,-debug-start-debuggee-test"
name="debug-test"/>
<target
depends="init,compile-test-single,-init-test-run-module-properties,-de

```

```

bug-start-debugger-test,-debug-start-debuggee-test-method"
name="debug-test-method"/>
    <target depends="debug-test-method" name="debug-single-method"/>
        <target depends="init,-pre-debug-fix,compile-test-single"
if="netbeans.home" name="-do-debug-fix-test">
            <j2seproject1:nbjpdareload dir="${build.test.classes.dir}" />
        </target>
        <target depends="init,-pre-debug-fix,-do-debug-fix-test"
if="netbeans.home" name="debug-fix-test"/>
    <!--
        =====
        APPLET EXECUTION SECTION
        =====
        -->
    <target depends="init,compile-single" name="run-applet">
        <fail unless="applet.url">Must select one file in the IDE or
set applet.url</fail>
        <j2seproject1:java classname="sun.applet.AppletViewer">
            <customize>
                <arg value="${applet.url}" />
            </customize>
        </j2seproject1:java>
    </target>
    <!--
        =====
        APPLET DEBUGGING SECTION
        =====
        -->
    <target depends="init,compile-single" if="netbeans.home"
name="-debug-start-debuggee-applet">
        <fail unless="applet.url">Must select one file in the IDE or
set applet.url</fail>
        <j2seproject3:debug classname="sun.applet.AppletViewer">
            <customizeDebuggee>
                <arg value="${applet.url}" />
            </customizeDebuggee>
        </j2seproject3:debug>
    </target>
    <target
depends="init,compile-single,-debug-start-debugger,-debug-start-debugg
ee-applet" if="netbeans.home" name="debug-applet"/>
    <!--
        =====
        CLEANUP SECTION
        =====

```

```

-->
<target name="-deps-clean-init" unless="built-clean.properties">
    <property location="${build.dir}/built-clean.properties"
name="built-clean.properties"/>
        <delete file="${built-clean.properties}" quiet="true"/>
</target>
<target if="already.built.clean.${basedir}"
name="-warn-already-built-clean">
    <echo level="warn" message="Cycle detected: TamaGui was
already built"/>
</target>
<target depends="init,-deps-clean-init" name="deps-clean"
unless="no.deps">
    <mkdir dir="${build.dir}"/>
    <touch file="${built-clean.properties}" verbose="false"/>
    <property file="${built-clean.properties}"
prefix="already.built.clean."/>
        <antcall target="-warn-already-built-clean"/>
        <propertyfile file="${built-clean.properties}">
            <entry key="${basedir}" value="" />
        </propertyfile>
</target>
<target depends="init" name="-do-clean">
    <delete dir="${build.dir}"/>
    <delete dir="${dist.jlink.output}"/>
    <delete dir="${dist.dir}" followsymlinks="false"
includeemptydirs="true"/>
</target>
<target name="-post-clean">
    <!-- Empty placeholder for easier customization. -->
    <!-- You can override this target in the ../build.xml file.
-->
    </target>
<target depends="init,deps-clean,-do-clean,-post-clean"
description="Clean build products." name="clean"/>
<target name="-check-call-dep">
    <property file="${call.built.properties}">
prefix="already.built."/>
        <condition property="should.call.dep">
            <and>
                <not>
                    <isset
property="already.built.${call.subproject}"/>
                </not>
                <available file="${call.script}"/>

```

```

        </and>
    </condition>
</target>
<target depends="-check-call-dep" if="should.call.dep"
name="-maybe-call-dep">
    <ant antfile="${call.script}" inheritall="false"
target="${call.target}">
        <propertyset>
            <propertyref prefix="transfer."/>
            <mapper from="transfer.*" to="*" type="glob"/>
        </propertyset>
    </ant>
</target>
</project>

```

//FILE: TaskFriend/nbproject/genfiles.properties

```

build.xml.data.CRC32=96285825
build.xml.script.CRC32=f46db3bb
build.xml.stylesheet.CRC32=f85dc8f2@1.107.0.48
# This file is used by a NetBeans-based IDE to track changes in
generated files such as build-impl.xml.
# Do not edit this file. You may delete it but then the IDE will never
regenerate such files for you.
nbproject/build-impl.xml.data.CRC32=96285825
nbproject/build-impl.xml.script.CRC32=3637ea25
nbproject/build-impl.xml.stylesheet.CRC32=12e0a6c2@1.107.0.48

```

//FILE: TaskFriend/nbproject/project.properties

```

annotation.processing.enabled=true
annotation.processing.enabled.in.editor=false
annotation.processing.processors.list=
annotation.processing.run.all.processors=true
annotation.processing.source.output=${build.generated.sources.dir}/ap-
source-output
application.title=TamaGui
application.vendor=Christian
build.classes.dir=${build.dir}/classes
build.classes.excludes=**/*.java,**/*.*.form
# This directory is removed when the project is cleaned:
build.dir=build
build.generated.dir=${build.dir}/generated
build.generated.sources.dir=${build.dir}/generated-sources

```

```
# Only compile against the classpath explicitly listed here:
build.sysclasspath=ignore
build.test.classes.dir=${build.dir}/test/classes
build.test.results.dir=${build.dir}/test/results
# Uncomment to specify the preferred debugger connection transport:
#debug.transport=dt_socket
debug.classpath=
    ${run.classpath}
debug.modulepath=
    ${run.modulepath}
debug.test.classpath=
    ${run.test.classpath}
debug.test.modulepath=
    ${run.test.modulepath}
# Files in build.classes.dir which should be excluded from
distribution jar
dist.archive.excludes=
# This directory is removed when the project is cleaned:
dist.dir=dist
dist.jar=${dist.dir}/TamaGui.jar
dist.javadoc.dir=${dist.dir}/javadoc
dist.jlink.dir=${dist.dir}/jlink
dist.jlink.output=${dist.jlink.dir}/TamaGui
endorsed.classpath=
excludes=
includes=**
jar.compress=false
javac.classpath=
# Space-separated list of extra javac options
javac.compilerargs=
javac.deprecation=false
javac.external.vm=true
javac.modulepath=
javac.processormodulepath=
javac.processorpath=
    ${javac.classpath}
javac.source=17
javac.target=17
javac.test.classpath=
    ${javac.classpath}:\n
    ${build.classes.dir}
javac.test.modulepath=
    ${javac.modulepath}
javac.test.processorpath=
    ${javac.test.classpath}
```

```
javadoc.additionalparam=
javadoc.author=false
javadoc.encoding=${source.encoding}
javadoc.html5=false
javadoc.noindex=false
javadoc.nonavbar=false
javadoc.notree=false
javadoc.private=false
javadoc.splitindex=true
javadoc.use=true
javadoc.version=false
javadoc.windowtitle=
# The jlink additional root modules to resolve
jlink.additionalmodules=
# The jlink additional command line parameters
jlink.additionalparam=
jlink.launcher=true
jlink.launcher.name=TamaGui
main.class=tamogui.TamaGuiHome
manifest.file=manifest.mf
meta.inf.dir=${src.dir}/META-INF
mkdist.disabled=false
platform.active=default_platform
run.classpath=\${javac.classpath}:\${build.classes.dir}
# Space-separated list of JVM arguments used when running the project.
# You may also define separate properties like run-sys-prop.name=value
instead of -Dname=value.
# To set system properties for unit tests define
test-sys-prop.name=value:
run.jvmargs=-Djava.security.policy=applet.policy
run.modulepath=\${javac.modulepath}
run.test.classpath=\${javac.test.classpath}:\${build.test.classes.dir}
run.test.modulepath=\${javac.test.modulepath}
source.encoding=UTF-8
src.dir=src
test.src.dir=test
```

//FILE: TaskFriend/nbproject/project.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<project xmlns="http://www.netbeans.org/ns/project/1">
    <type>org.netbeans.modules.java.j2seproject</type>
    <configuration>
        <data xmlns="http://www.netbeans.org/ns/j2se-project/3">
            <name>TamaGui</name>
            <source-roots>
                <root id="src.dir"/>
            </source-roots>
            <test-roots>
                <root id="test.src.dir"/>
            </test-roots>
        </data>
    </configuration>
</project>
```

//FILE: TaskFriend/Images/Accessory/Bow.png



//FILE: TaskFriend/Images/Accessory/Duck.png



//FILE: TaskFriend/Images/Accessory/Glasses.png



//FILE: TaskFriend/Images/Avatar/Dead/Bow/Milo.png
//FILE: TaskFriend/Images/Avatar/Dead/Bow/Ozzo.png
//FILE: TaskFriend/Images/Avatar/Dead/Bow/Petunia.png
//FILE: TaskFriend/Images/Avatar/Dead/Bow/Shey.png

```
//FILE: TaskFriend/Images/Avatar/Dead/Bow/Tee.png  
//FILE: TaskFriend/Images/Avatar/Dead/Default/Milo.png  
//FILE: TaskFriend/Images/Avatar/Dead/Default/Ozzo.png  
//FILE: TaskFriend/Images/Avatar/Dead/Default/Petunia.png  
//FILE: TaskFriend/Images/Avatar/Dead/Default/Shey.png  
//FILE: TaskFriend/Images/Avatar/Dead/Default/Tee.png  
//FILE: TaskFriend/Images/Avatar/Dead/Duck/Milo.png  
//FILE: TaskFriend/Images/Avatar/Dead/Duck/Ozzo.png  
//FILE: TaskFriend/Images/Avatar/Dead/Duck/Petunia.png  
//FILE: TaskFriend/Images/Avatar/Dead/Duck/Shey.png  
//FILE: TaskFriend/Images/Avatar/Dead/Duck/Tee.png  
//FILE: TaskFriend/Images/Avatar/Dead/Glasses/Milo.png  
//FILE: TaskFriend/Images/Avatar/Dead/Glasses/Ozzo.png  
//FILE: TaskFriend/Images/Avatar/Dead/Glasses/Petunia.png  
//FILE: TaskFriend/Images/Avatar/Dead/Glasses/Shey.png  
//FILE: TaskFriend/Images/Avatar/Dead/Glasses/Tee.png
```

NOTE: All of the above files have the same image as below:



```
//FILE: TaskFriend/Images/Avatar/Healthy/Bow/Milo.png
```



```
//FILE: TaskFriend/Images/Avatar/Healthy/Bow/Ozzo.png
```



//FILE: TaskFriend/Images/Avatar/Healthy/Bow/Petunia.png



//FILE: TaskFriend/Images/Avatar/Healthy/Bow/Shey.png



//FILE: TaskFriend/Images/Avatar/Healthy/Bow/Tee.png



//FILE: TaskFriend/Images/Avatar/Healthy/Default/Milo.png



//FILE: TaskFriend/Images/Avatar/Healthy/Default/Ozzo.png



//FILE: TaskFriend/Images/Avatar/Healthy/Default/Petunia.png



//FILE: TaskFriend/Images/Avatar/Healthy/Default/Shey.png



//FILE: TaskFriend/Images/Avatar/Healthy/Default/Tee.png



//FILE: TaskFriend/Images/Avatar/Healthy/Duck/Milo.png



//FILE: TaskFriend/Images/Avatar/Healthy/Duck/Ozzo.png



//FILE: TaskFriend/Images/Avatar/Healthy/Duck/Petunia.png



//FILE: TaskFriend/Images/Avatar/Healthy/Duck/Shey.png



//FILE: TaskFriend/Images/Avatar/Healthy/Duck/Tee.png



//FILE:

TaskFriend/Images/Avatar/Healthy/Glasses/Milo.png



//FILE:
TaskFriend/Images/Avatar/Healthy/Glasses/Ozzo.png



//FILE:
TaskFriend/Images/Avatar/Healthy/Glasses/Petunia.png



//FILE:
TaskFriend/Images/Avatar/Healthy/Glasses/Shey.png



//FILE:
TaskFriend/Images/Avatar/Healthy/Glasses/Tee.png



//FILE: TaskFriend/Images/Avatar/Sick/Bow/Milo.png



//FILE: TaskFriend/Images/Avatar/Sick/Bow/0zzo.png



//FILE: TaskFriend/Images/Avatar/Sick/Bow/Petunia.png



//FILE: TaskFriend/Images/Avatar/Sick/Bow/Shey.png



//FILE: TaskFriend/Images/Avatar/Sick/Bow/Tee.png



//FILE: TaskFriend/Images/Avatar/Sick/Default/Milo.png



//FILE: TaskFriend/Images/Avatar/Sick/Default/Ozzo.png



//FILE:
TaskFriend/Images/Avatar/Sick/Default/Petunia.png



//FILE: TaskFriend/Images/Avatar/Sick/Default/Shey.png



//FILE: TaskFriend/Images/Avatar/Sick/Default/Tee.png



//FILE: TaskFriend/Images/Avatar/Sick/Duck/Milo.png



//FILE: TaskFriend/Images/Avatar/Sick/Duck/Ozzo.png



//FILE: TaskFriend/Images/Avatar/Sick/Duck/Petunia.png



//FILE: TaskFriend/Images/Avatar/Sick/Duck/Shey.png



//FILE: TaskFriend/Images/Avatar/Sick/Duck/Tee.png



//FILE: TaskFriend/Images/Avatar/Sick/Glasses/Milo.png



//FILE: TaskFriend/Images/Avatar/Sick/Glasses/Ozzo.png



//FILE: TaskFriend/Images/Avatar/Sick/Glasses/Petunia.png



//FILE: TaskFriend/Images/Avatar/Sick/Glasses/Shey.png



//FILE: TaskFriend/Images/Avatar/Sick/Glasses/Tee.png



//FILE: TaskFriend/Images/Avatar/Weak/Bow/Milo.png



//FILE: TaskFriend/Images/Avatar/Weak/Bow/Ozzo.png



//FILE: TaskFriend/Images/Avatar/Weak/Bow/Petunia.png



//FILE: TaskFriend/Images/Avatar/Weak/Bow/Shey.png



//FILE: TaskFriend/Images/Avatar/Weak/Bow/Tee.png



//FILE: TaskFriend/Images/Avatar/Weak/Default/Milo.png



//FILE: TaskFriend/Images/Avatar/Weak/Default/Ozzo.png



//FILE: TaskFriend/Images/Avatar/Weak/Default/Petunia.png



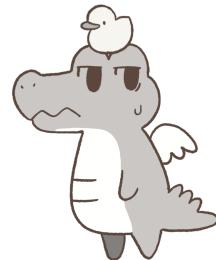
//FILE: TaskFriend/Images/Avatar/Weak/Default/Shey.png



//FILE: TaskFriend/Images/Avatar/Weak/Default/Tee.png



//FILE: TaskFriend/Images/Avatar/Weak/Duck/Milo.png



//FILE: TaskFriend/Images/Avatar/Weak/Duck/Ozzo.png



//FILE: TaskFriend/Images/Avatar/Weak/Duck/Petunia.png



//FILE: TaskFriend/Images/Avatar/Weak/Duck/Shey.png



//FILE: TaskFriend/Images/Avatar/Weak/Duck/Tee.png



//FILE: TaskFriend/Images/Avatar/Weak/Glasses/Milo.png



//FILE: TaskFriend/Images/Avatar/Weak/Glasses/Ozzo.png



//FILE: TaskFriend/Images/Avatar/Weak/Glasses/Petunia.png



//FILE: TaskFriend/Images/Avatar/Weak/Glasses/Shey.png



//FILE: TaskFriend/Images/Avatar/Weak/Glasses/Tee.png



//FILE: TaskFriend/Images/Food/Chocolate.png



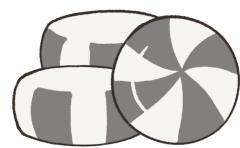
//FILE: TaskFriend/Images/Food/Donut.png



//FILE: TaskFriend/Images/Food/Lollipop.png



//FILE: TaskFriend/Images/Food/Peppermint.png



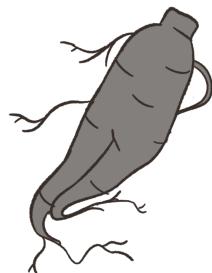
//FILE: TaskFriend/Images/Food/Toffee.png



//FILE: TaskFriend/Images/Heal/Chamomile.png



//FILE: TaskFriend/Images/Heal/Ginseng.png



//FILE: TaskFriend/Images/Heal/Lavender.png



//FILE: TaskFriend/Images/Heal/Mint.png



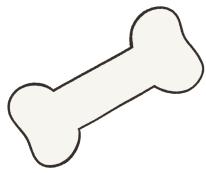
//FILE: TaskFriend/Images/Heal/Turmeric.png



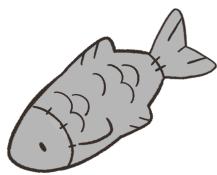
//FILE: TaskFriend/Images/Toy/Ball.png



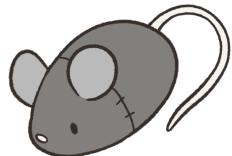
//FILE: TaskFriend/Images/Toy/Bone.png



//FILE: TaskFriend/Images/Toy/Fish.png



//FILE: TaskFriend/Images/Toy/Mouse.png



//FILE: TaskFriend/Images/Toy/Squeaky.png



References

Java SE Documentation by Oracle. *How to Use Various Components*. [online] Available at: <https://docs.oracle.com/javase/tutorial/uiswing/components/componentlist.html>

GeekExtreme. *What is a Tamagotchi? From 90s Fad to Modern Must-Have Toy*. [online] Available at: <https://www.geekextreme.com/what-is-a-tamagotchi/>

Stack Overflow. *Running a Java Thread in intervals*. [online] Available at: <https://stackoverflow.com/questions/426758/running-a-java-thread-in-intervals>

We need to periodically decrease the health attributes, we find ScheduledExecutorService thread code and modify it to call our functions periodically.

Java SE Documentation by Oracle. *ScheduledExecutorService*. [online] Available at: <https://docs.oracle.com/javase/6/docs/api/java/util/concurrent/ScheduledExecutorService.html>

Stack Overflow. *Java JList AbstractListModel add remove method not working - Stack Overflow*. [online] Available at: <https://stackoverflow.com/questions/46488805/java-jlist-abstractlistmodel-add-remove-method-not-working>

Task.java is influenced by the above code, but instead of storing a string we stored the task Object and added a function to convert the task object to string.