

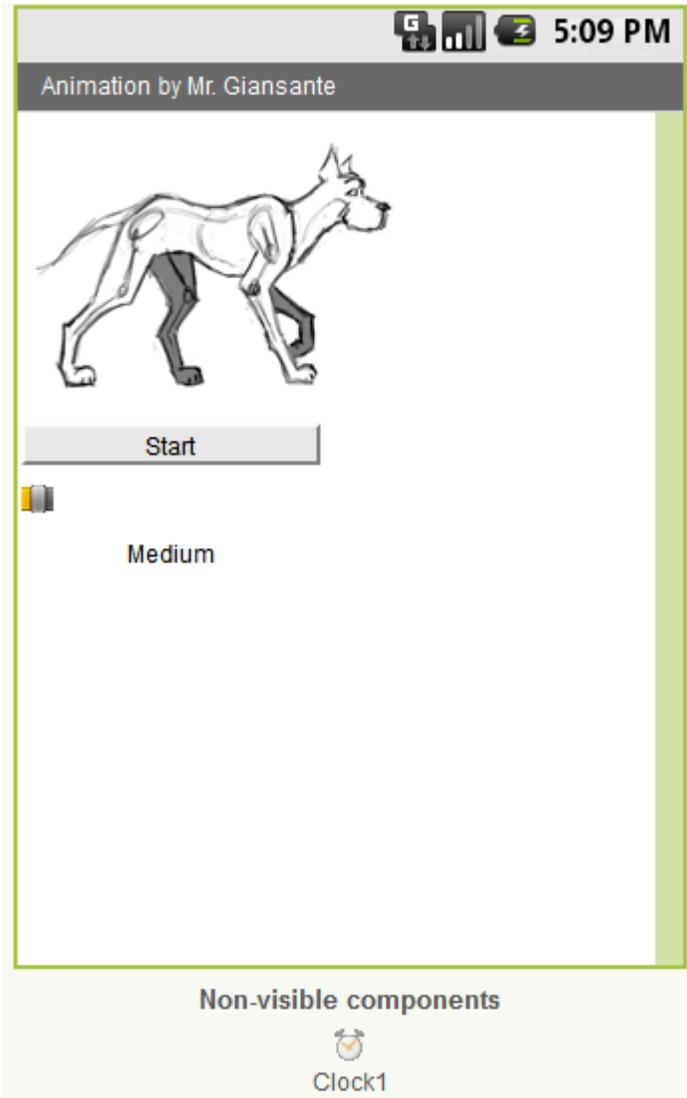
Mr. Giansante



Project:
Animation

March 2019

Animation

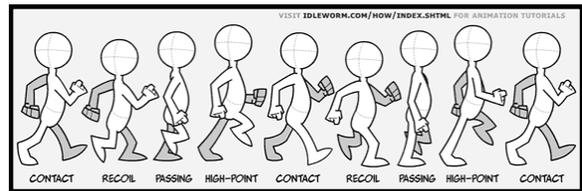


Using Pre-made Animation Frames

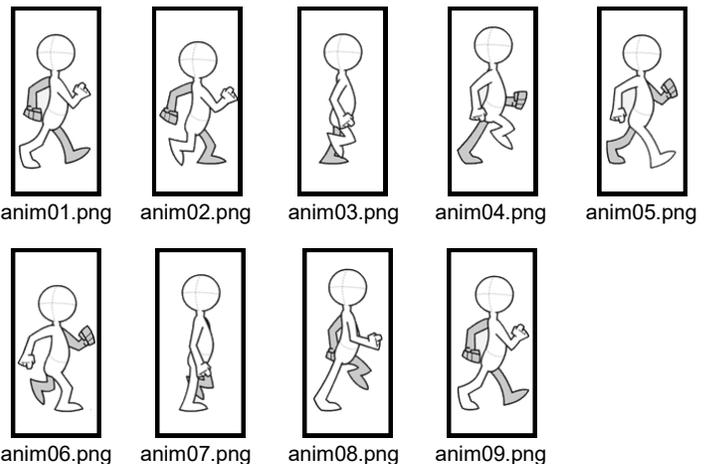
You can use one of the animations provided by the teacher or find your own (hint: Google Image Search "Animation Sequence")

Creating your own Animation Frames

Files containing series of animated frames will be provided. You will have to edit these picture files using PhotoShop or Window's Paint program. This will involve breaking up the files containing the series of frames into files containing individual frames. It is important that all the files you create have the same dimensions.



originalanimation.png



Design an Android App that will display a simple animation containing a minimum of six frames.

The user should be presented with a button to control the starting and stopping of the animation. When the animation is stopped, the button should read "Start" and when the animation is running, the button should read "Stop".

The user should be able to switch between three options for the speed of the animation: Slow, Medium and Fast). Use the Clock's TimerInterval property to control the speed.

Animation

```
def speed as number 0
def anim as number 1

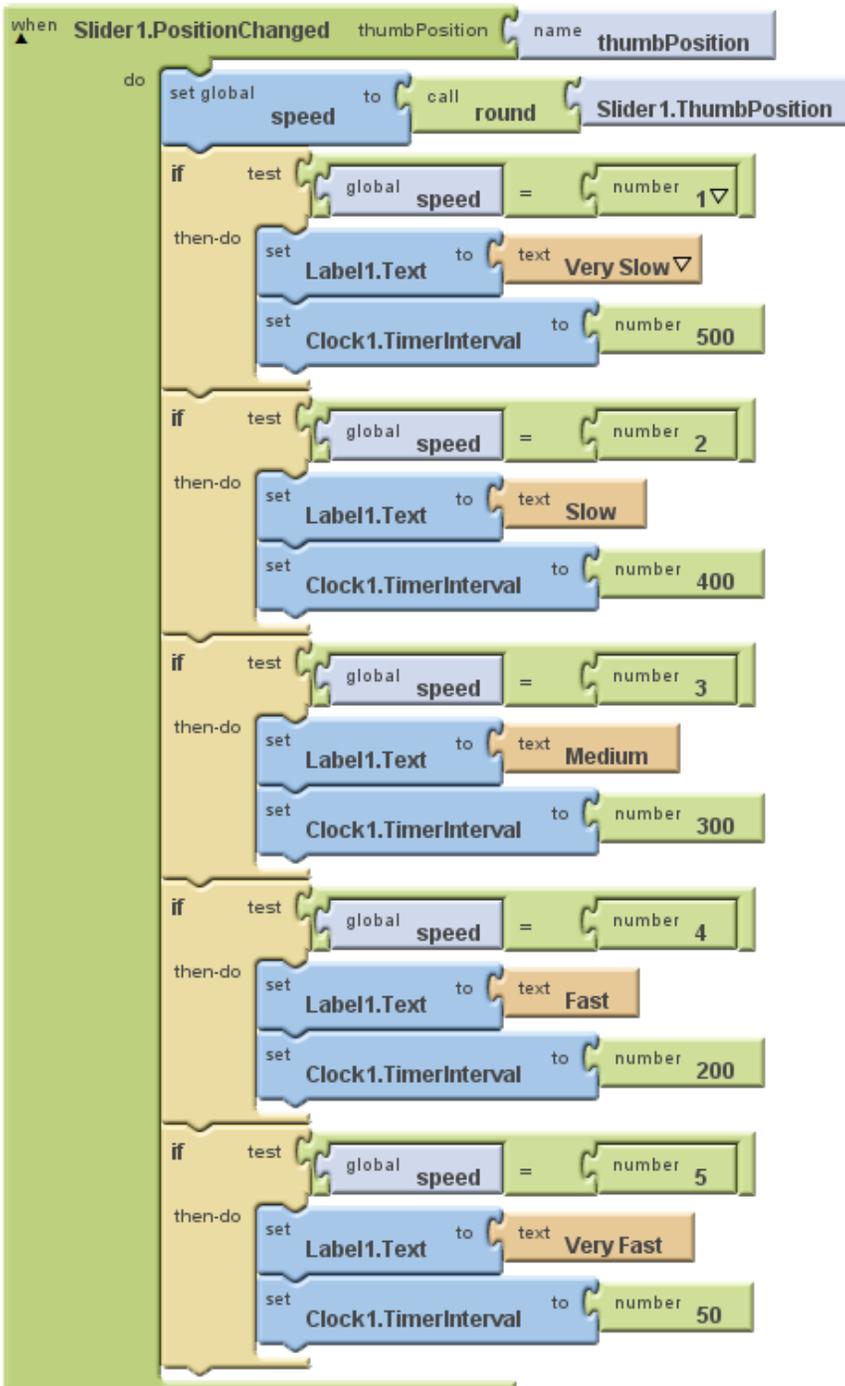
when Screen1.Initialize
do
  set Clock1.TimerEnabled to false
  set Clock1.TimerInterval to number 300

when Button1.Click
do
  ifelse test Button1.Text = text Start
  then-do
    set Clock1.TimerEnabled to true
    set Button1.Text to text Stop
  else-do
    set Clock1.TimerEnabled to false
    set Button1.Text to text Start
```

```
when Clock1.Timer
do
  set global anim to global anim + number 1
  if test global anim >= number 9
  then-do
    set global anim to number 1
  set Label1.Text to global anim
  if test global anim = number 1
  then-do
    set Image1.Picture to text anim01.png
  if test global anim = number 2
  then-do
    set Image1.Picture to text anim02.png
  if test global anim = number 3
  then-do
    set Image1.Picture to text anim03.png
  if test global anim = number 4
  then-do
    set Image1.Picture to text anim04.png
  if test global anim = number 5
  then-do
    set Image1.Picture to text anim05.png
  if test global anim = number 6
  then-do
    set Image1.Picture to text anim06.png
  if test global anim = number 7
  then-do
    set Image1.Picture to text anim07.png
  if test global anim = number 8
  then-do
    set Image1.Picture to text anim08.png
```

Animation

Below is some sample code if you choose to use a **Slider** control to let the user select the speed.



Animation



Learning Outcomes

Programming Concepts and Skills

- A1. demonstrate the ability to use different data types, including one-dimensional arrays, in computer programs
- A2. demonstrate the ability to use control structures and simple algorithms in computer programs
- A3. demonstrate the ability to use subprograms within computer programs
- A4. use proper code maintenance techniques and conventions when creating computer programs

Software Development

- B1. use a variety of problem-solving strategies to solve different types of problems independently and as part of a team
- B2. design software solutions to meet a variety of challenges
- B3. design algorithms according to specifications
- B4. apply a software development life-cycle model to a software development project

Please fill out all the information in this column using a pen before getting this assignment marked.

Name

_____ _____
Date Class

Academic Honesty

The work I am submitting is completely my own creation and has not been copied from anyone else's work. If I have received help on this project, the names of those who have assisted are listed below.

Signature

Pre-Marking

The following people have pre-marked this assignment:
(minimum of two)

User Interface

- Appropriate Title, Author Information, etc.
- Efficient and Esthetically-Pleasing User Interface
- Spelling and Grammar are correct

Code / Programming Style

- Variables are declared and logically named
- Code is commented where appropriate
- Code is indented and spaced to show structure
- Code is efficient

Work Ethic / Problem Solving Skills

- Problem Solving Skills are demonstrated
- Makes Productive Use of Time
- Only Seeks Help when Necessary

Program-Specific Criteria

- "Start" Button Works
- "Stop" Button Works
- Animation starts on first click of "Start" Button
- Default speed is displayed
- Speed can be controlled
- Pictures are appropriate size and well positioned
- Animation is Fluid

Teacher Comments

- Level 1 - Limited ability to meet standard and limited effectiveness
- Level 2 - Some ability demonstrated and moderately effective
- Level 3 - Considerable ability demonstrated, considerable clarity or accuracy
- Level 4 - Thorough, high degree of skill demonstrated, insightful, highly accurate

Level