

# Final Project Design

*You must submit this entire document along with the corresponding Alice file at each phase of the design. You will add to both the document and the Alice project at each step.*

## Step 1: Final Project Proposal

Your name: Janet Joy

Title of story: Jack and the Beanstalk

Link to the website where this story can be found. This must be a known story featuring people or other bipeds! (In Alice, Bipeds stand on two legs. In addition to people the Wolf, Pig, Rabbit and a few other characters are bipeds.) [https://en.wikipedia.org/wiki/Jack\\_and\\_the\\_Beanstalk](https://en.wikipedia.org/wiki/Jack_and_the_Beanstalk)

A synopsis of the story you are going to tell. Write the synopsis as 5 or 6 sentences that give the major events of the story.

Jack and his poor widowed mother are starving. Jack's mother tells him to trade the cow for food to eat. Jack takes the cow to the market and trades it for magic beans. The beans grow into a beanstalk that reaches the castle of a giant. Jack climbs the beanstalk and steals a goose that lays golden eggs. The giant chases Jack, but Jack chops down the beanstalk. Jack and his mother grow rich and live happily ever after.

Your movie will be in interactive. Give an alternate ending that could result based on choices the user makes.

1. Jack does not trade the cow for the beans.
2. Jack does not chop down the beanstalk. The giant kills Jack and his mother.

What choice will the user make that will result in the second ending?

The user decides if Jack should trade the cow for beans, and whether to chop down the beanstalk.

Why did you pick this story?

My mother told me this story when I was little. She did a lot of sound effects, and used different voices for the characters. That made it fun to listen to.

Start a new Alice 3 project, if you are going to have a room in your story, be sure to select the room to start. Save the project as lastname\_firstname\_finalproject1.a3p

Add comments to my first method with your name, title of the story, and the synopsis, each line of the synopsis must be a separate comment.

Submit this document with step one completed (nothing deleted) and the lastname\_firstname\_finalproject1.a3p file in assignments.

## Step 2: Final Project Scenes and Characters

For each of the lines of the synopsis create a **Scene Procedure**. Add comments to tell what happens in each scene procedure.

List the scenes, actors and props that you will use in each scene. Note, you may use the same elements in more than one Scene Procedure. For instance, the story may start and stop with the main character at home. Use camera markers to change scenes.

1. Jack and his mother are at home.  
Jack, his mother, a small shack, a cow
2. Jack and the cow are in the marketplace talking to a trader about the magic beans.  
Jack, cow, trader, billboard to show marketplace
3. Jack and his mother are at home, the mother throws away the beans.  
Jack, his mother, a small shack
4. Overnight, the beans grow into an enormous beanstalk reaching up into the clouds.  
Jack, his mother, a small shack, beanstalk
5. Jack climbs the beanstalk and finds himself in the castle of an unfriendly giant.  
Jack, castle, giant sleeping, goose
6. Jack takes a goose that lays golden eggs and tries to leave, but the goose yells for the giant.  
Jack, castle, giant awake, goose
7. The giant chases Jack down the beanstalk.  
Jack, giant, beanstalk
8. Jack chops down the beanstalk, and the giant falls.  
Jack, giant, mother, beanstalk, axe
9. Jack and his mother grow rich from the golden eggs.  
Jack, his mother, a small shack, goose and piles of money

If there are items in your story that are not in Alice, how will you represent them?

Billboards can display a picture, or you can substitute something.

I use a billboard for the marketplace. There is no goose, I am using an ostrich. I am using bamboo for the beanstalk. There is no axe, so I am using the Mjolnir (the hammer of Thor).

Open the final project, lastname\_firstname\_finalproject1.a3p, and save it as lastname\_firstname\_finalproject2.a3p

For now, you can create one scene on the left, one in the middle and one on the right. Add all of the characters and objects to the scene.

From the menu select Project, Resource manager, import audio. Import at least 3 sounds that you will use in the final project. List those 3 sounds here.

Basketball dribble for cutting down the beanstalk, cow mooing, goose honking

Submit this document with steps one and two completed (nothing deleted) and the lastname\_firstname\_finalproject2.a3p file in assignments.

### **Step 3: Final Project Interactions:**

Tell how you will make the story interactive? List at least two questions the actors ask of the user. The answer must change the movie in some way. Example: How many times should I knock? Should I go left or right? Etc.

Should Jack buy the magic beans? If yes, the story proceeds, if no Jack goes home and they starve.

In Alice, you can select an object by clicking on it. List one choice the user can make by clicking on the choice. Example: Click on the tool that will open the lock. Click on each pig to make him run away. Click on the gate to open it.

Click the axe if Jack should chop down the beanstalk. If they click it Jack chops down the beanstalk, if not, the giant kills Jack and his mother.

Open the final project, lastname\_firstname\_finalproject2a3p, and save it as lastname\_firstname\_finalproject3.a3p. Add the variables and the questions to store the results in the variables to the Scene Procedure where the question will be asked. (You will add the response to the questions and the clicking part later.) This is in Marketplace and Chase procedures.

Submit this document with steps one, two and three completed (nothing deleted) and the lastname\_firstname\_finalproject3.a3p file in assignments.

### **Step 4: Final Project Procedures**

List at least 3 different Biped procedures that you will create: walk, bow, climb, etc.

**Throw** (the beans), **Climb** (the beanstalk), **Chop** (with the axe)

Open the final project, lastname\_firstname\_finalproject3.a3p, and save it as lastname\_firstname\_finalproject4.a3p. Add the 3 Biped Procedures to the project. Be sure to include a comment that tells what each block of code does.

Call the procedures in the scene where the action will take place. You may have the same procedure in more than one scene. For instance, **walking** may occur for multiple characters, in multiple scenes.

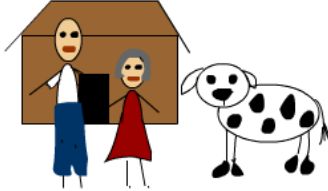
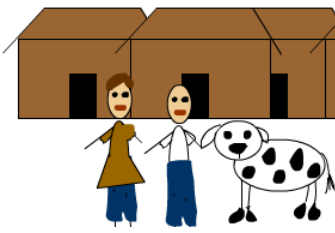
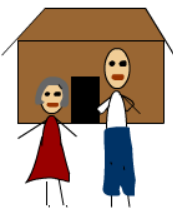
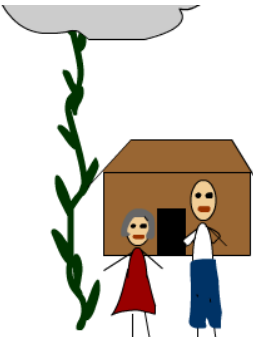
Submit this document with steps one, two, three and four completed (nothing deleted) and the lastname\_firstname\_finalproject4.a3p file in assignments.

### **Step 5: Final Project Algorithm and Storyboard**

Write the algorithm. Show each of the major steps that will occur.

1. Jack and his mother are at home.  
Jack, his mother, a small shack, a cow
2. Jack and the cow are in the marketplace talking to a trader about the magic beans.  
Jack, cow, trader, billboard to show marketplace
3. Jack and his mother are at home, the mother throws away the beans.  
Jack, his mother, a small shack
4. Overnight, the beans grow into an enormous beanstalk reaching up into the clouds.  
Jack, his mother, a small shack, beanstalk
5. Jack climbs the beanstalk and finds himself in the castle of an unfriendly giant.  
Jack, castle, giant sleeping, goose
6. Jack takes a goose that lays golden eggs and tries to leave, but the goose yells for the giant.  
Jack, castle, giant awake, goose
7. The giant chases Jack down the beanstalk.  
Jack, giant, beanstalk
8. Jack chops down the beanstalk, and the giant falls.  
Jack, giant, mother, beanstalk, axe
9. Jack and his mother grow rich from the golden eggs.  
Jack, his mother, a small shack, goose and piles of money

Create a storyboard. Your storyboard has at least 10 frames with the major events, scene changes, and dialog. The storyboard is your own work. You can draw stick figures on paper, then take a picture or use any drawing software. You may NOT use art work done by anyone else. Paste the storyboard here:

|   |   |
|---|---|
| <p><b>Scene 1: At home</b></p> <p>Mother: Jack, we have nothing to eat.<br/>Jack: I know, mom, what are we going to do?<br/>Mother: Take the cow and sell it for as much food as you can.<br/>Jack: OK.</p>  | <p><b>Scene 2: The market</b></p> <p>Jack: I need to sell this cow. What will you give me for it?<br/>Tradesman: I will give you these magic beans.<br/>Jack: Great!</p>           |
| <p><b>Scene 3: Back home</b></p> <p>Jack: Look Mom, I got some magic beans!<br/>Mother: You fool! How could you trade our cow for a handful of worthless beans?<br/>Mother throws beans away.</p>            | <p><b>Scene 4: Next morning</b></p> <p>Jack: Look Mom, the beans grew into a magic beanstalk!<br/>Mother: Amazing! It goes up to the clouds!<br/>Jack: I'm going to climb it.</p>  |

**Scene 5: Jack climbs the beanstalk**

Jack climbs the beanstalk and finds himself in the castle of an unfriendly giant who is sleeping.

Jack: Look, it's the goose that lays golden eggs!  
Jack grabs goose.  
Goose: Help! Help! Squawk, squawk.



**Scene 6: Giant wakes up**

The giant wakes up and chases Jack

Giant: Fe-fi-fo-fum! I smell the blood of an Englishman!  
Jack thinks: Uh-oh!



**Scene 7: Jack goes down beanstalk and throws goose to mother**

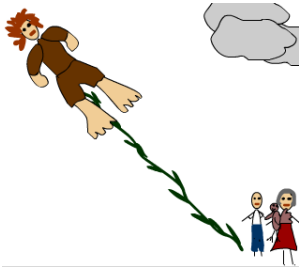
Jack: Mom! Catch! It's the goose that lays golden eggs  
Mom: Jack, hurry!



**Scene 8: Jack chops down beanstalk**

Jack: What should I use to chop down the beanstalk?

Jack grabs hammer and chops down beanstalk



**Scene 9: The giant falls**

**Scene 10: Jack and mother grow rich from the goose that lays golden eggs**

Mother: We are rich now.  
Mother: I'm sorry I called you an idiot.  
Jack: That's Ok Mom.



## Step 6: Final Project Biped Procedures

Open the final project, lastname\_firstname\_finalproject5.a3p, and save it as lastname\_firstname\_finaoproject6.a3p. Make a procedure for each step of the algorithm. For each procedure add comments to tell what occurs. In my first method, add calls to each procedure.

Write the code for the animation as procedures. The code will work for all instances of the class, so add parameters to the procedures so that some can walk faster or slower, etc.

What procedures have you added:

Submit this document with steps one through six completed (nothing deleted) and the lastname\_firstname\_finalproject6.a3p file in assignments.

## Step 7: Final Project Arrays

Open the final project, lastname\_firstname\_finalproject6.a3p, and save it as lastname\_firstname\_finaoproject7.a3p. Find someplace where several objects do the same thing. Modify the code to use an array. For instance, you may want to make several items invisible by setting the opacity to 0. Create an array of these things, then use a loop to change the opacity.

What array have you added:

Submit this document with steps one through seven completed (nothing deleted) and the lastname\_firstname\_finalproject7.a3p file in assignments.

## Step 8: Final Project Events

Open the final project, lastname\_firstname\_finalproject7.a3p, and save it as lastname\_firstname\_finaoproject8.a3p. Find someplace where you can interact with the user by having them click on a choice. Add the click event to the code. Add another event.

What events have you added:

Submit this document with steps one through eight completed (nothing deleted) and the lastname\_firstname\_finalproject8.a3p file in assignments.

## Finish

Continue to add the finishing touches to the final project. Be sure to add comments, and save often using a progression of numbers as you have done throughout the design process.