Karel Project #3

STUFF, STUFF, STUFF

You are on your way to becoming a Master Creator. With a few tricks, you can tell a story with a Karel Maze.

Select Creative Suite, open Programming, and launch a new Karel project. Click on File and save the worksheet in the folder course-karel-projects under the new name, stuff-stuff-stuff.

Click on 🖉 Designer and select 🖌 to remove the example maze.

Goal: Create a Story for Your Maze

To tell a story, you will:

1. Review the tools in the Karel Designer.
2. Write a story for your maze.
3. Make a maze for your story.
4. Test and publish your maze.

Telling a Story

What do you think Karel is doing in this maze?

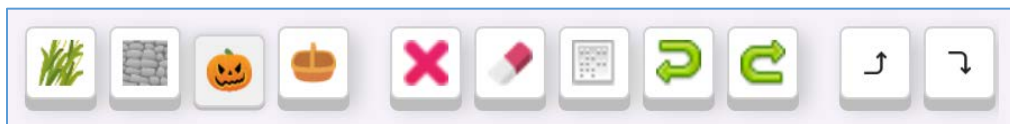Karel could be repairing a fence, collecting flowers, or gathering apples. If a player started this maze, they may be confused because there is not a clear goal.

To make a clear goal, you can add a story to a maze.

Step 1: Review the Tools in the Karel Designer

The Designer is full of useful tools. This is the Top Menu:

The buttons in the Top Menu all have different uses:

Themes: Change a background for your maze. There are many choices.

Obstacles: It is best to pick a wall that is a different color than your background.

Objects: Karel loves collecting objects. Keys, fruit, swords, bombs, radios, shields, rugs, watches...

Containers: These containers are a perfect place to put things.

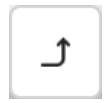**Remove Mode:** Press this button, and you can remove individual objects, obstacles, or containers from your maze.

Eraser: Very powerful! Press this button and you can remove **all** of the objects, obstacles, and containers in your maze.
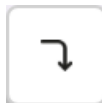
Undo: Cancel the last operation. How convenient!

Redo: Cancel the last Undo operation.

Left Turn: Turn Karel left.

Right Turn: Turn Karel right.

Step 2: Write a Story For Your Maze

Click **Designer** and view the various Themes, Objects, and Containers. Do you see anything you can use for a story?

The story does not have to be long - three or four sentences are enough. But it needs to explain what Karel should do.
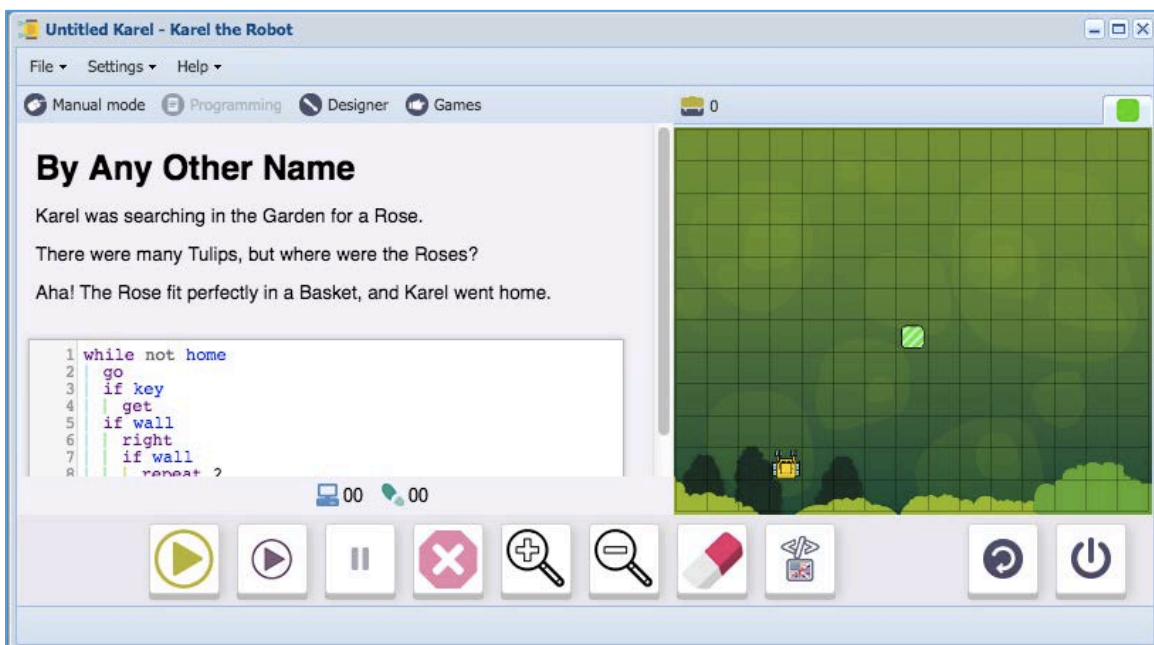
Here is an example:

"Today. Karel is searching in the Garden for a Rose. There are many Tulips, but where are the Roses? Find the Roses and put them in the Baskets before going to the Home Square."
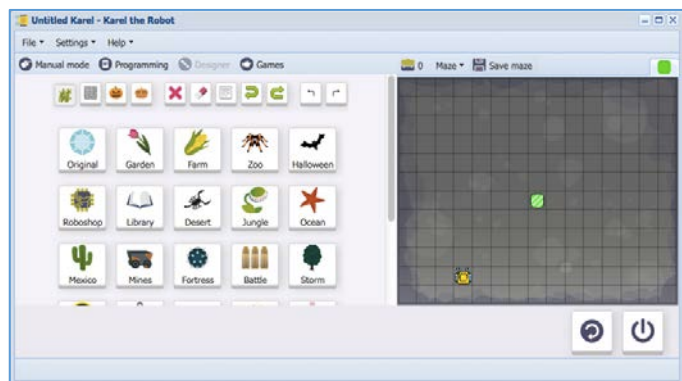
Click on **Programming** and select the Welcome to Karel paragraph to edit the Summary.
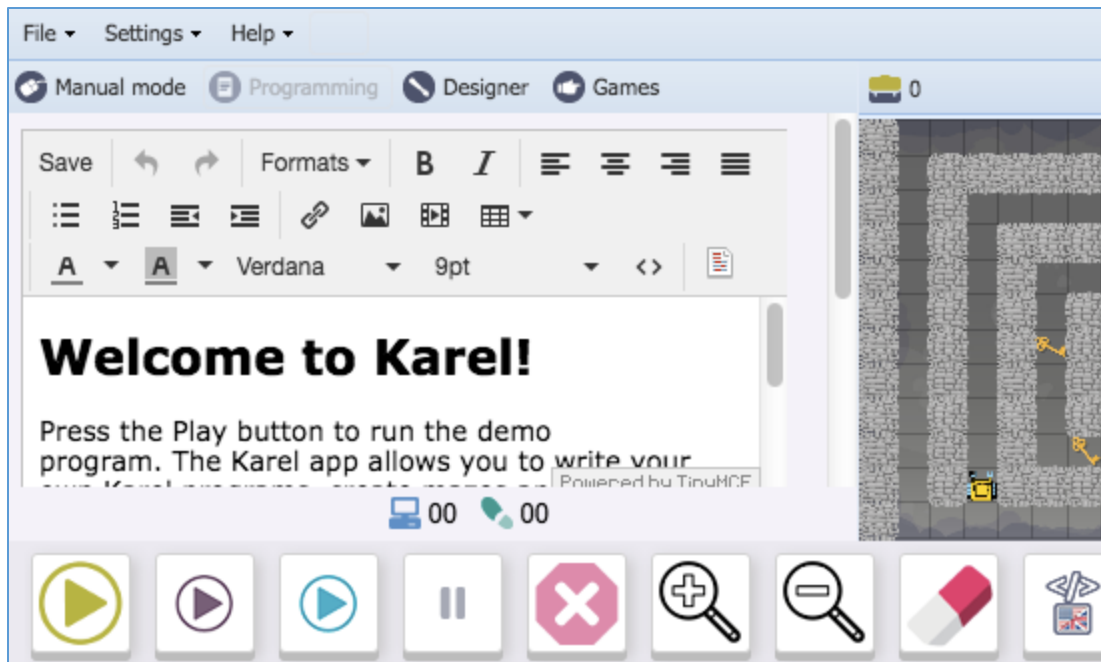
Delete the text and type your story in the text field. Then click Save on the top left of the Edit window.

By Any Other Name

Karel was searching in the Garden for a Rose.

There were many Tulips, but where were the Roses?

Aha! The Rose fit perfectly in a Basket, and Karel went home.

```
1  while not home
2    go
3    if key
4      get
5    if wall
6      right
7      if wall
8        repeat 2
```

Step 3: Make a Maze For Your Story

Here are some examples of possible mazes:

Using the Designer, try placing different Obstacles, Objects, and Containers that help to tell your story.

Once your maze is finished, use Manual Mode to navigate Karel through your maze and to the Home Square. Select if you want to make any changes.

Step 4: Test Your Maze and Share It On the Web

Finally, press Play to test your maze and make sure it is solvable. Once you have tested your maze, you can use the Publish on the web option in the File menu to share your maze with others.

You can learn a lot by asking people how they enjoyed your maze. Did your story help them understand the goal of your maze?

Project Checklist

Your project will be finished when:

1. Your file stuff-stuff-stuff is saved in the folder course-karel-projects/.
2. You have written a story.
3. You have created a maze for your story.
4. You have tested your maze.
5. You have shared your maze with others.