Now What?

Additional Research

To help improve your game,

- Flame website

  https://github.com/flame-engine/flame
- Painting function

  https://api.flutter.dev/flutter/painting/painting-library.html
- Game physics

  google things like “math for game programmers”

  “physics for game programmers”

Levels

A game usually has many levels

You need a way of keeping track of what level the player is on

Even if they quit the app

You need a way of storing data in permanent storage

https://pub.dev/packages/shared_preferences

Google “flutter storage” to see other examples and tutorials

Sounds

Our game only uses one sound

You can add sounds in different situations

- Ball hits wall
- Ball hits block
- Ball destroys block
- Win
- Lose
- Background music

Powers

Bounce of things to give you certain abilities

- Break block with one hit
- Extra ball inside block

  Make a block with no color and just a border

  stationary ball positioned inside block

  when block is broken, you have a second ball bouncing around
- Restore an ignored side for the remainder of the ball

Physics

Use gravity in some levels

- Simulate gravity by applying acceleration to the y speed

  Every update, add acceleration*t to the existing y speed
- The bounces will now look like arcs, not straight lines

Friction

- Lose energy after every bounce

  every bounce multiply x and y speed by a friction constant that is slightly less than 1
- Decrease only the direction that gets switched (- direction)

Shapes

Look at the Path class in the paint library

Allows you to draw different shapes

Easiest would be to just do polygons by passing a list of points

The tricky part is the bounce

Research on how to bounce off an angled line

- When you bounce off a 45-degree line, all of the x speed is transferred to y
- All of y is transferre to x
- Between 0 and 45 degrees, work out the amount transferred

App Stores

Do research on creating actual binary apps

- In development, your app is a byte-code runner
- One app is one phone that can run any flutter program
- When you run your app, new byte code is sent to that app

A binary app is compiled to the machine language of the device

- Runs very fast
- Can be submitted to the app stores

Lots of tutorials on how to submit flutter apps

That's It

Send any suggestions or error reports to

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