



Getting started with surveydown

Meet your instructor!



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Meet the dev team!



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Before we start...

1. Be sure to [install everything](#)
2. Download the [examples](#)

Getting started with surveydown



Welcome to the Ultimate Superhero Survey!



Thank you for participating in our research on superhero preferences and powers! This survey will help us understand what makes superheroes appealing to different people.

This survey should take about 3-5 minutes to complete.

Do you have a favorite super hero?

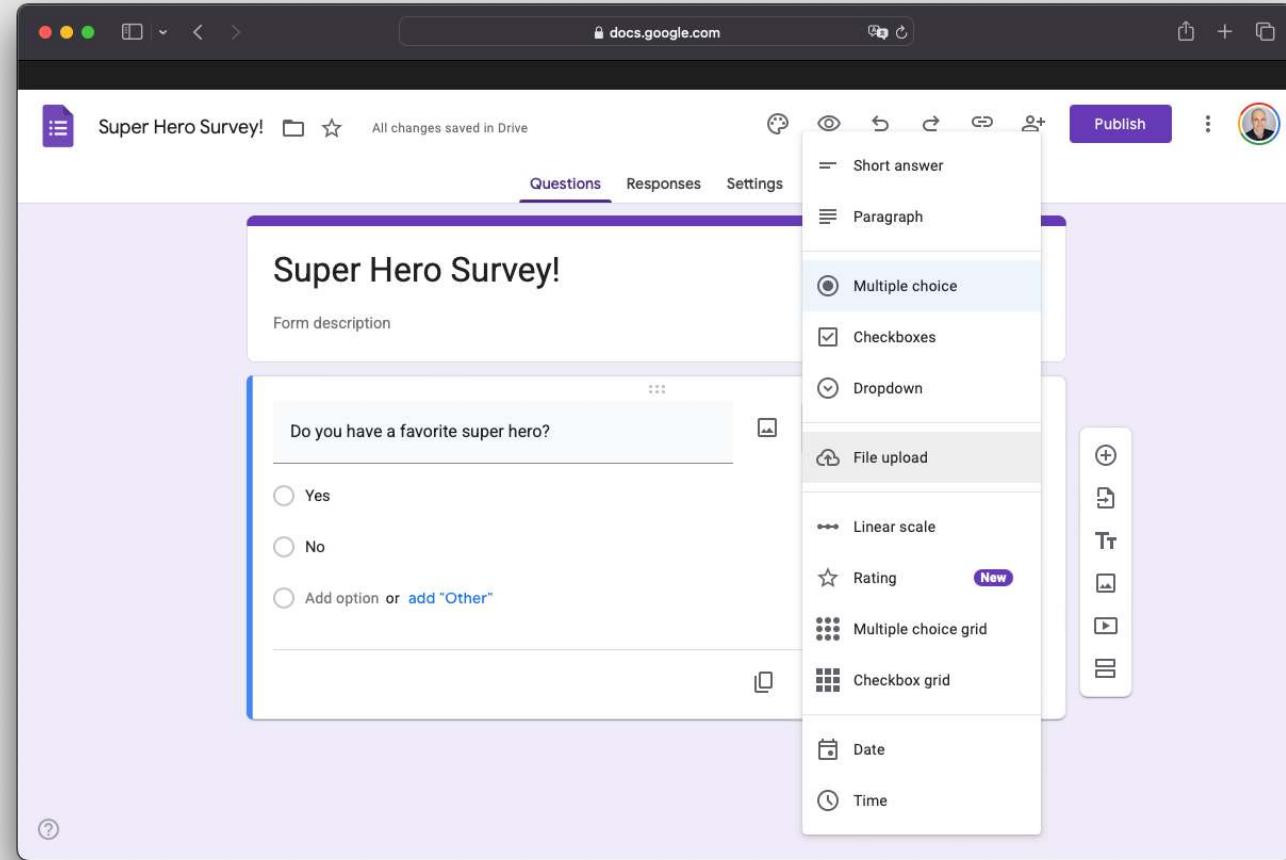
*

- Yes
- No

Next

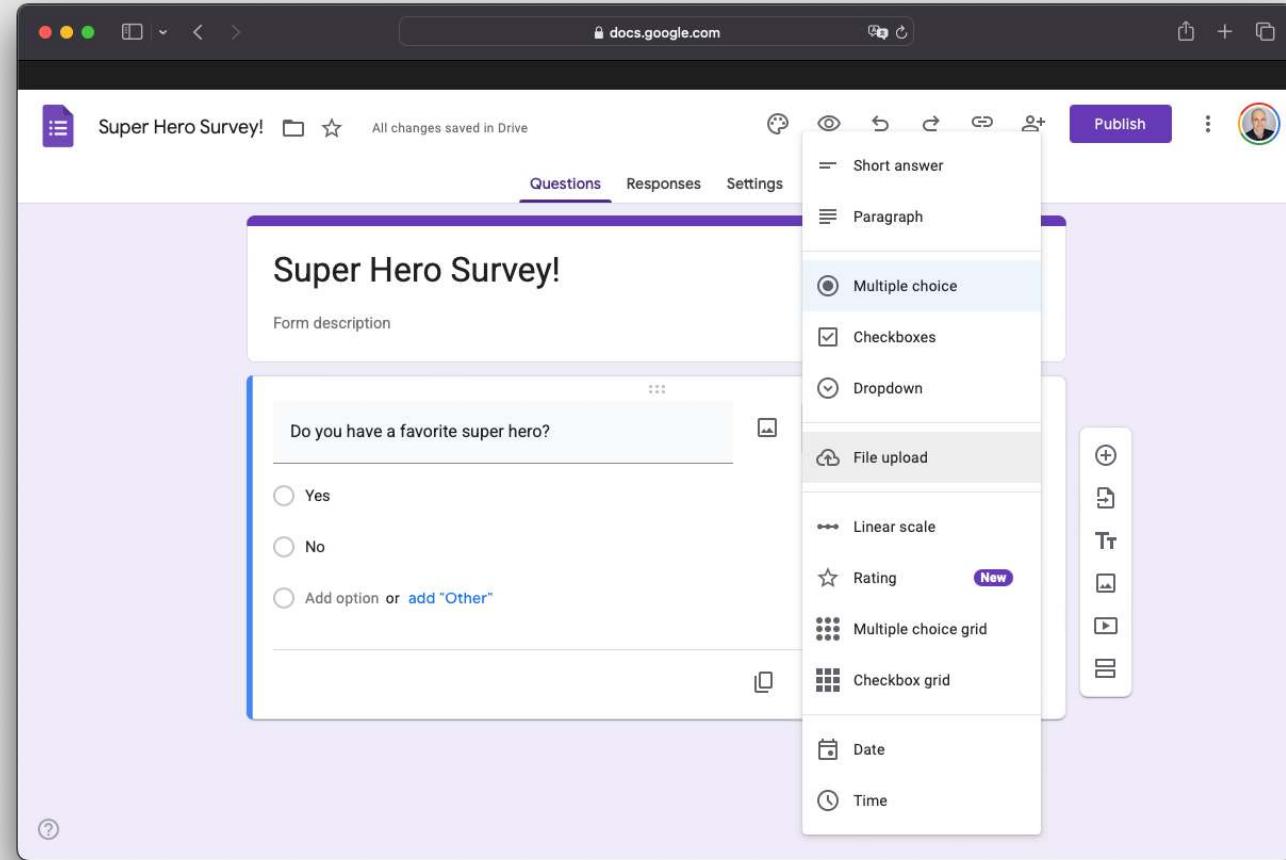
WYSIWYG Interface

The screenshot shows a Google Forms interface titled "Super Hero Survey!". The main area displays a single question: "Do you have a favorite super hero?". The question has three options: "Yes", "No", and "Add option or add "Other"". A floating toolbar on the right side of the screen provides various question type options, such as "Short answer", "Paragraph", "Multiple choice" (which is currently selected), "Checkboxes", "Dropdown", "File upload", "Linear scale", "Rating", "Multiple choice grid", "Checkbox grid", "Date", and "Time". The "Multiple choice" option is highlighted with a blue selection bar. The top navigation bar includes tabs for "Questions", "Responses", and "Settings", along with a "Publish" button and user profile icon.



Limitations

✗ Reproducibility



Limitations

✗ Reproducibility

✗ Version control

Untitled 138.docx
Untitled 241.doc
Untitled 138 copy.docx
Untitled 138 copy 2.docx
Untitled 139.docx
Untitled 40 MOM ADDRESS.jpg
Untitled 242.doc
Untitled 243.doc
Untitled 243 IMPORTANT.doc



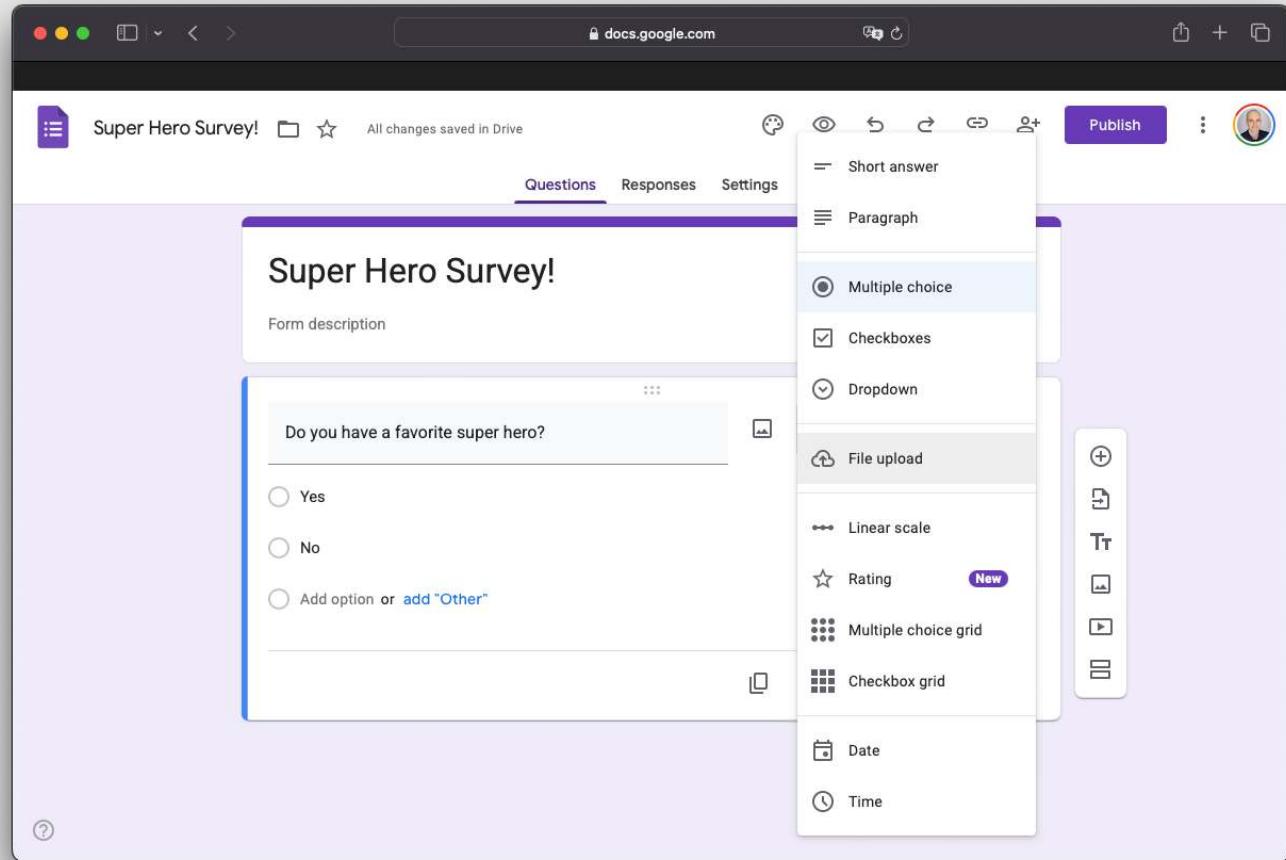
The screenshot shows a Google Forms interface. At the top, there's a navigation bar with 'Questions' (highlighted in purple), 'Responses', and 'Settings'. Below the navigation bar is the title 'Super Hero Survey!'. A form description 'Do you have a favorite super hero?' is followed by a multiple choice question with three options: 'Yes', 'No', and 'Add option or add "Other"'. A modal menu is open, listing various question types: Short answer, Paragraph, Multiple choice (selected), Checkboxes, Dropdown, File upload, Linear scale, Rating (New), Multiple choice grid, Checkbox grid, Date, and Time. The 'Multiple choice' option is highlighted with a blue selection bar.

Limitations

✗ Reproducibility

Version control

✗ Limited features



Limitations

✗ Reproducibility

Version control

Limited features

✗ Open source

Why not make surveys from code?

Why not make
surveys from code?

~~Limitations~~ Features

 Reproducibility

Version control

Lots of features

 Open source

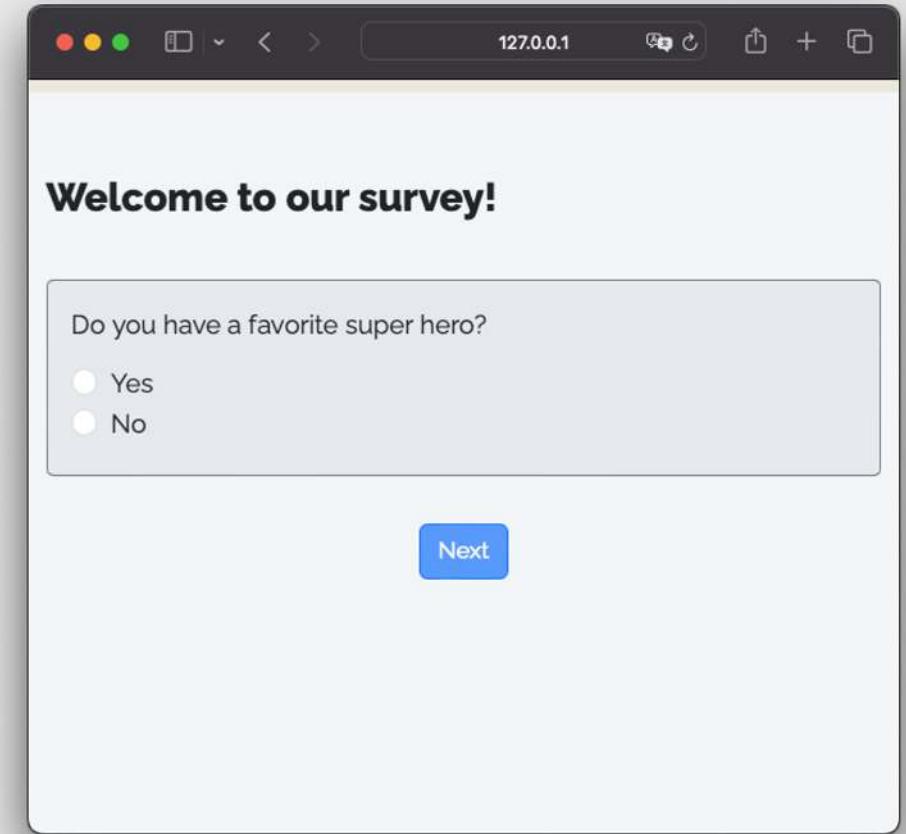
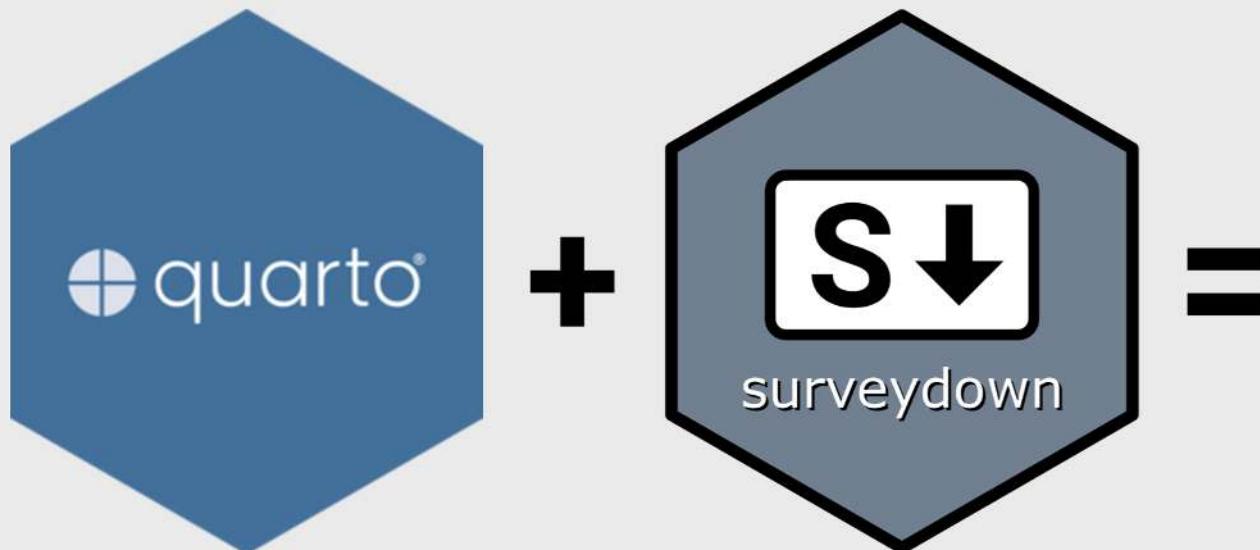
Introducing surveydown!



Getting started with surveydown

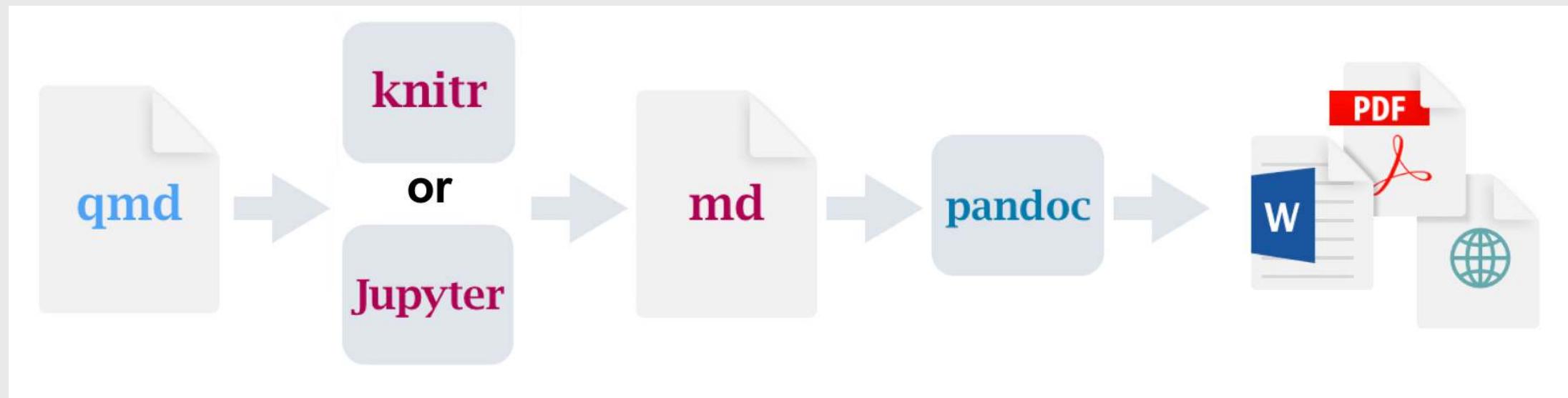
1. What is surveydown?
2. Adding survey content

R package that renders Quarto files into surveys



What is Quarto?

Quarto is a publishing system that blends
markdown-formatted text & code



example.qmd

```
---
```

```
format: html
title: "HTML Page with R Code"
---
```

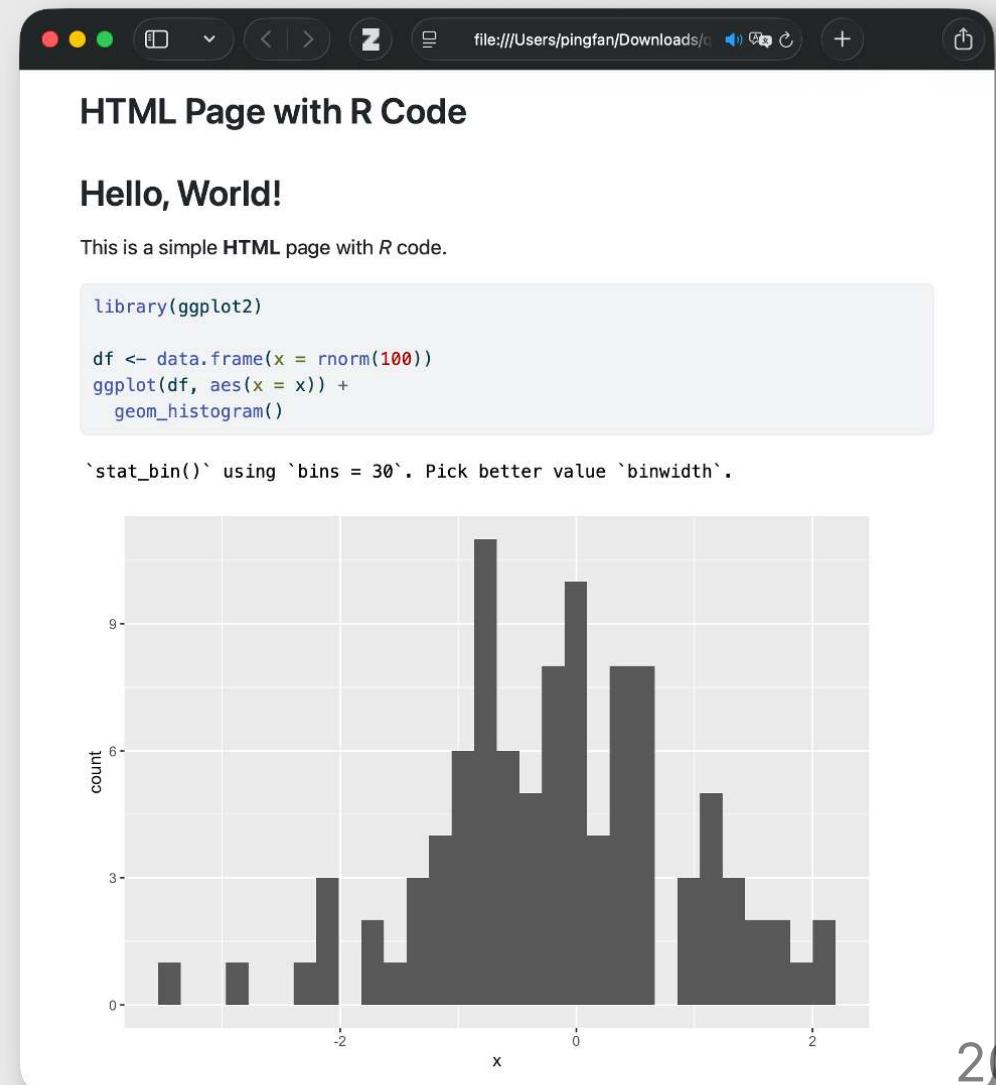
```
# Hello, World!
```

```
This is a simple **HTML** page with *R* code.
```

```
```{r}
library(ggplot2)

df <- data.frame(x = rnorm(100))
ggplot(df, aes(x = x)) +
 geom_histogram()
```
```

Rendered output



survey.qmd

```
---
```

```
format: html
echo: false
warning: false
---
```

```
```{r}
library(surveydown)
```

--- welcome

# Welcome to our survey!

```{r}
sd_question(
 type = "mc",
 id = "penguins",
 label = "What's your favorite penguin?",
 option = c(
 "Adélie" = "adelie",
 "Chinstrap" = "chinstrap",
 "Gentoo" = "gentoo"
)
)

sd_next()
```

--- end

This is the last page of the survey.

```{r}
sd_close()
```
```

```
---
```

```
format: html
```

```
echo: false
```

```
warning: false
```

```
---
```

```
```{r}
```

```
library(surveydown)
```

```
```
```

```
--- welcome
```

```
# Welcome to our survey!
```

```
```{r}
```

```
sd_question(
```

```
 type = "mc",
```

```
 id = "penguins",
```

```
 label = "What's your favorite penguin?",
```

```
 option = c(
```

```
 "Adélie" = "adelie",
```

```
 "Chinstrap" = "chinstrap",
```

```
 "Gentoo" = "gentoo"
```

```
)
```

```
)
```

```
sd_next()
```

```
```
```

```
--- end
```

```
This is the last page of the survey.
```

```
```{r}
```

```
sd_close()
```

## YAML Header

Load `surveydown` package

```

```

```
format: html
```

```
echo: false
```

```
warning: false
```

```

```

```
```{r}
```

```
library(surveydown)
```

```
```
```

```
--- welcome
```

```
Welcome to our survey!
```

```
```{r}
```

```
sd_question(
```

```
  type = "mc",
```

```
  id = "penguins",
```

```
  label = "What's your favorite penguin?",
```

```
  option = c(
```

```
    "Adélie" = "adelie",
```

```
    "Chinstrap" = "chinstrap",
```

```
    "Gentoo" = "gentoo"
```

```
  )
```

```
)
```

```
sd_next()
```

```
```
```

Define page breaks like this:

```
--- page_id
```

```
Page content
```

This is the last page of the survey.

```
```{r}
```

```
sd_close()
```

```
---
```

```
format: html
```

```
echo: false
```

```
warning: false
```

```
---
```

```
```{r}
```

```
library(surveydown)
```

```
```
```

```
--- welcome
```

```
# Welcome to our survey!
```

```
```{r}
```

```
sd_question(
```

```
 type = "mc",
```

```
 id = "penguins",
```

```
 label = "What's your favorite penguin?",
```

```
 option = c(
```

```
 "Adélie" = "adelie",
```

```
 "Chinstrap" = "chinstrap",
```

```
 "Gentoo" = "gentoo"
```

```
)
```

```
)
```

```
sd_next()
```

```
```
```

```
--- end
```

This is the last page of the survey.

```
```{r}
```

```
sd_close()
```

Use markdown for page content

Use `sd_question()` in code chunk for survey questions

Use `sd_next()` for next button

```

```

```
format: html
echo: false
warning: false

```

```
```{r}
library(surveydown)
```

--- welcome
```

```
Welcome to our survey!
```

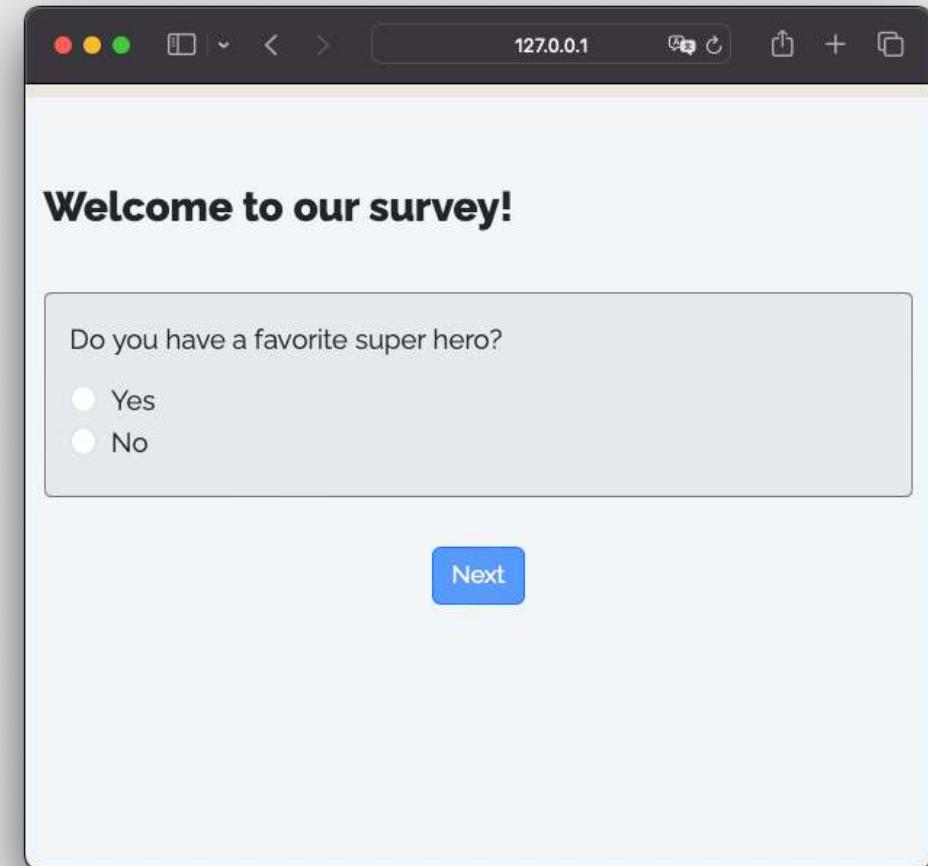
```
```{r}
sd_question(
  type = "mc",
  id = "penguins",
  label = "What's your favorite penguin?",
  option = c(
    "Adélie" = "adelie",
    "Chinstrap" = "chinstrap",
    "Gentoo" = "gentoo"
  )
)

sd_next()
```

--- end
```

This is the last page of the survey.

```
```{r}
sd_close()
```



Use Shiny to drive the web app



Survey Components

`survey.qmd`

A **Quarto doc** defining the main survey content (pages, text, images, questions, etc).

`app.R`

An **R script** defining the survey Shiny app. It sets up the database and server, and launches the survey.

app.R

```
library(surveydown)

# Connects to database
db <- sd_db_connect()

# Main UI
ui <- sd_ui()

server <- function(input, output, session) {

  # Main server
  sd_server(db)

}

shiny::shinyApp(
  ui = ui,
  server = server
)
```

```
library(surveydown)

# Connects to database
db <- sd_db_connect()

# Main UI
ui <- sd_ui()

server <- function(input, output, session) {

  # Main server
  sd_server(db)

}

shiny::shinyApp(
  ui = ui,
  server = server
)
```

Load package

Connect to database

Make standard UI

Run surveydown server

05:00

Your turn - start with a template

Step 1: In R console, run:

```
surveydown::sd_create_survey()
```

Optional: Specify a path and / or a template:

```
surveydown::sd_create_survey(  
  template = "question_types",  
  path      = "path/to/folder"  
)
```

Step 2: In your IDE, open the app.R file, click "Run App", or in R console run:

```
shiny::runApp('app.R')
```

Getting started with surveydown

1. What is surveydown?
2. Adding survey content

YAML Header

The YAML header is at the top of the `.qmd` file:

```
---
```

```
format: html
echo: false
warning: false
---
```

Change the survey theme

Pick a different [bootswatch theme](#) with the `theme` key:

```
---  
format: html  
echo: false  
warning: false  
theme: united  
---
```

Make a custom theme with a [custom.scss](#) file

```
---  
format: html  
echo: false  
warning: false  
theme: [united, custom.scss]  
---
```

Progress bar

You can modify the survey progress bar with the `barcolor` and `barposition` keys:

Change to any color with `barcolor`:

```
---  
format: html  
echo: false  
warning: false  
barcolor: #768692  
---
```

Change position: `top`, `bottom`, or `none`

```
---  
format: html  
echo: false  
warning: false  
barposition: bottom  
---
```

Inserting pages

Insert new pages with the shorthand syntax using three dashes `---` followed by the page ID:

```
--- page1
```

Page `1` content here

```
--- page2
```

Page `2` content here

Inserting next buttons

Insert buttons with the `sd_next()` function to go to the next page:

```
```{r}
sd_next()
```
```

Specify a specific page to go to:

```
```{r}
sd_next('next_page_id')
```
```

Inserting questions

Insert questions using the `sd_question()` function, like this:

Code

```
sd_question(  
  type    = 'mc',  
  id      = 'fruit',  
  label   = "1. Do you like fruit?",  
  option  = c(  
    'Yes!'   = 'yes',  
    'Kind of' = 'kind_of',  
    'No :('   = 'no'  
  )  
)
```

Format is "`Label = value`"

Output

1. Do you like fruit?

- Yes!
 - Kind of
 - No :(
- *

Data

`yes`, `kind_of`, or `no`

surveydown supports lots of question types

Some common types you may want to use:

| Type | Description |
|-------------|---|
| mc | Multiple choice question (single choice) |
| mc_multiple | Multiple choice question (multiple choices) |
| mc_buttons | Multiple choice question (large buttons) |
| select | Drop down menu (choose one) |
| text | Open text, single row |
| textarea | Open text, block |

Embed images with html

I recommend just writing html code, like this

```
<center>  
  
</center>
```



Embed images with markdown

```
{fig-align="center" width="250"}
```



Try out the surveydown studio app

```
sdstudio::launch()
```

10:00

Your turn

- Open and edit the `survey.qmd` file that you previously made.
- Pick a topic for your survey (a food, an animal, a sports team...whatever).
- Draft a survey about that topic. Include the following:
 - Page 1: A welcome message in large font ("Welcome to a survey about [topic]") and an image about the topic (find an image somewhere).
 - Pages 2 to N: Add different questions about the topic using several different question types.
- Try out different themes to change the look and feel.

OR:

Open and play with the examples:

- `part-1-question-types`
- `part-1-question-yml`