

## Chapter 1 : A RUNAWAY REEF

### CS50 Shirtificate

John Harvard's CS50 Shirtificate

Suppose that you™ like to implement a CS50 shirtificate, a PDF with an image of an I took CS50 t-shirt, shirtificate.png, customized with a user™s own name.

In a file called shirtificate.py, implement a program that prompts the user for their name and outputs, using fpdf2, a CS50 shirtificate in a file called shirtificate.pdf similar to this one for John Harvard, with these specifications:

The orientation of the PDF should be Portrait.

The format of the PDF should be A4, which is 210mm wide by 297mm tall.

The top of the PDF should say CS50 Shirtificate as text, centered horizontally.

The shirt™s image should be centered horizontally.

The user™s name should be on top of the shirt, in white text.

All other details we leave to you. You™re even welcome to add borders, colors, and lines. Your shirtificate needn™t match John Harvard™s precisely. And no need to wrap long names across multiple lines.

Before writing any code, do read through fpdf2™s tutorial to learn how to use it. Then skim fpdf2™s API (application programming interface) to see all of its functions and parameters therefor.

No need to submit any PDFs with your code. But, if you would like, you™re welcome (but not expected) to share a shirtificate with your name on it in any of CS50™s communities!

### Hints

Note that fpdf2 comes with a class called FPDF, which has quite a few methods, per [py-pdf.github.io/fpdf2/fpdf/#fpdf](https://py-pdf.github.io/fpdf2/fpdf/#fpdf). FPDF. You can install it with:

```
pip install fpdf2
```

Note that you can extend FPDF and instantiate your own subclass thereof in order to add a header to every page of a PDF, per [py-pdf.github.io/fpdf2/Tutorial.html#tuto-2-header-footer-page-break-and-image](https://py-pdf.github.io/fpdf2/Tutorial.html#tuto-2-header-footer-page-break-and-image). Or you can add it as text yourself.

Note that you can disable automatic page breaks, which might otherwise cause your PDF to overflow from one page to two, with `set_auto_page_break`, per [py-pdf.github.io/fpdf2/Margins.html](https://py-pdf.github.io/fpdf2/Margins.html).

Note that a cell™s height can be negative, to move it upward.

You can open shirtificate.pdf, once outputted, by clicking it in VS Code™s file explorer.

*(end of excerpt)*

## Chapter 2 : THE PROS AND CONS

### CS50 Shirtificate

John Harvard's CS50 Shirtificate

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pip install fpdf2
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Note that you can extend FPDF and instantiate your own subclass thereof in order to add a header to every page of a PDF, per [py-pdf.github.io/fpdf2/Tutorial.html#tuto-2-header-footer-page-break-and-image](https://py-pdf.github.io/fpdf2/Tutorial.html#tuto-2-header-footer-page-break-and-image). Or you can add it as text yourself.

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