



**Cabinet Office**

**Jenny Duckett**

Senior Developer

Government Digital Service

@jenny\_duckett



# I'm from the UK Government Digital Service (GDS)

GOV.UK

The  
strategy

is  
delivery

Simpler  
Clearer

USERS  
~~CUSTOMERS~~  
USERS

government  
work for  
users

What is  
the user  
need?

GDS  
UNITED

BE BOLD

BE BOLD

This is for  
everyone

TRUST · USERS · DELIVERY

Software as a  
Public Service

Users First

Users First



GOV.UK

Make

things

open,

it makes

things

better

It's all about people

digital, data and technology profession

clear, concise, correct



# Welcome to GOV.UK

The best place to find government services and information  
**Simpler, clearer, faster**



Popular on GOV.UK

[Universal Jobmatch job search](#)

[Renew vehicle tax](#)

[Log in to student finance](#)

[Book your theory test](#)

[Personal tax account](#)

## [Benefits](#)

Includes tax credits, eligibility and appeals

## [Births, deaths, marriages and care](#)

Parenting, civil partnerships, divorce and Lasting Power of Attorney

## [Business and self-employed](#)

Tools and guidance for businesses

## [Childcare and parenting](#)

Includes giving birth, fostering, adopting, benefits for children, childcare and schools

## [Citizenship and living in the UK](#)

Voting, community participation, life in the UK, international projects

## [Crime, justice and the law](#)

Legal processes, courts and the police

## [Disabled people](#)

Includes carers, your rights, benefits and the Equality Act

## [Driving and transport](#)

Includes vehicle tax, MOT and driving licences

## [Education and learning](#)

Includes student loans, admissions and apprenticeships

## [Employing people](#)

Includes pay, contracts and hiring

## [Environment and countryside](#)

Includes flooding, recycling and wildlife

## [Housing and local services](#)

Owning or renting and council services

## [Money and tax](#)

Includes debt and Self Assessment

## [Passports, travel and living abroad](#)

Includes renewing passports and travel advice by country

## [Visas and immigration](#)

Visas, asylum and sponsorship

## [Working, jobs and pensions](#)

Includes holidays and finding a job

**First, a sad story**





**Alice Bartlett** @alicebartlett · May 13

Replying to @alicebartlett

The one I've done before was OK but all the examples were sexist so F  
THAT



1



1



4



**Alice Bartlett** @alicebartlett · May 13

eg literally every person in a scenario who introduced a loophole was a woman,  
and everyone who fixed it was a man.



1



**Alice Bartlett** @alicebartlett · May 13

The trainer kept using phrases like "silly girl has done X"



6



1





Inappropriate content :- (



**Why run a  
workshop?**



**It's ok to...**

**say "I don't know"**  
**ask for more clarity**  
**stay at home when you feel ill**  
**say you don't understand**  
**ask what acronyms stand for**  
**ask why, and why not**  
**forget things**  
**introduce yourself**  
**depend on the team**  
**ask for help**  
**not know everything**  
**have quiet days**  
**have loud days, to talk, joke and laugh**  
**put your headphones on**  
**say "No" when you're too busy**  
**make mistakes**  
**sing**  
**sigh**  
**not check your email out of hours**  
**not check your email constantly during hours**



Show that it's ok to take time out  
to learn



Scale your impact

**We're all responsible for what we build**



**Why focus on  
security?**

Developers often don't feel confident  
about security



Expand the community of  
interested people

Security is one of many areas  
we care about



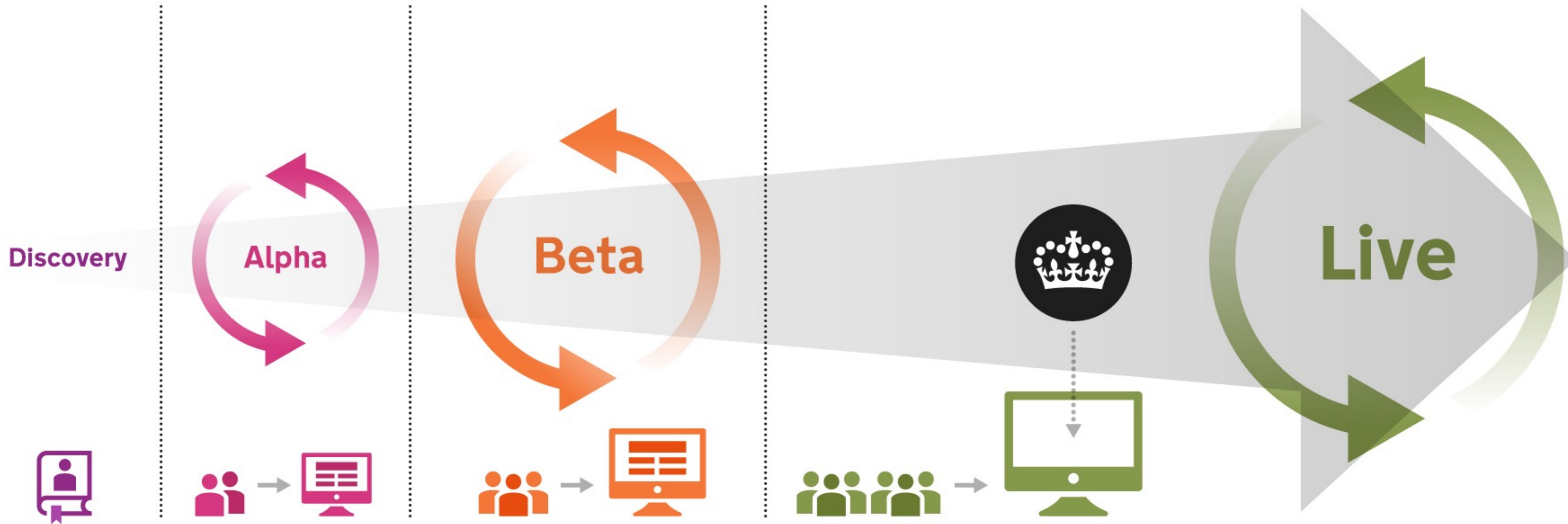
**But I'm not a  
security expert!**

...so I can't do this

...~~so I can't do this~~

...that's fine, do it anyway

# User needs





Treat it as an alpha - prototype and iterate

You don't have to cover everything

Experts aren't always the best teachers

It isn't about having all the answers



Find someone to work with



# Alex Muller (with egg for scale)





# Hypotheses to test

The OWASP top 10  
is a good starting  
point

## OWASP Top 10 – 2013 (New)

**A1 – Injection**

**A2 – Broken Authentication and Session Management**

**A3 – Cross-Site Scripting (XSS)**

**A4 – Insecure Direct Object References**

**A5 – Security Misconfiguration**

**A6 – Sensitive Data Exposure**

**A7 – Missing Function Level Access Control**

**A8 – Cross-Site Request Forgery (CSRF)**

**A9 – Using Known Vulnerable Components**

**A10 – Unvalidated Redirects and Forwards**



**Keep a strong practical focus**

Make it a single day

Use the source code of exercises to learn



# Government Digital Service

Aviation House, 125 Kingsway, Holborn, L... <https://gds.blog.gov.uk/>

Repositories

People 44

Search repositories...

Type: All

Language: All

## whitehall

Publishes government content on GOV.UK

govuk govuk-publishing-frontend

Ruby 399 156 Updated 18 seconds ago



## smart-answers

Serves smart answers on GOV.UK

govuk govuk-publishing-frontend

Ruby 90 85 Updated 19 seconds ago



## digitalmarketplace-buyer-frontend

Frontend buyer application for the digital marketplace

digitalmarketplace

Python 5 Updated a minute ago



## paas-rds-broker

### Top languages

Ruby Python JavaScript CSS Go

### Most used topics

govuk govuk-publishing-frontend verify digitalmarketplace govuk-pay

### People

44 >





Learn how to use your everyday tools better



This repository

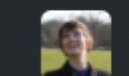
Search

Pull requests

Issues

Marketplace

Gist



# OWASP / railsgoat

Watch

35

Star

368

Fork

134

Code

Issues 15

Pull requests 2

Projects 0

Wiki

Insights

A vulnerable version of Rails that follows the OWASP Top 10 <http://railsgoat.cktricky.com>

1,055 commits

6 branches

0 releases

20 contributors

MIT

Branch: master

New pull request

Create new file

Upload files

Find file

Clone or download



cktricky committed on GitHub Merge pull request #253 from jasnow/master

Latest commit 3474385 on Dec 17, 2016

app

removed comments and Fixed Issue #184

a year ago

config

Fix METHOD for forgot\_password route

a year ago

db

Upgraded simplecov and poltergeist gems

a year ago

doc

made some changes to the application controller, added a user control...

4 years ago

gauntlt\_scripts

adding simple sqlmap gauntlt script, WIP

4 years ago

lib

Based on cane gem, removed tab indents and trailing blanks

2 years ago

log

made some changes to the application controller, added a user control...

4 years ago

public

More Rails 4.0 upgrade changes

3 years ago

script

adding vagrant and docker files

3 years ago

spec

Fixes #165

a year ago

Bring it home by using examples from  
your own applications

Get people to work together and  
help each other



Make something that other people can  
build on

# Practical tips

About 15 people, with a range of skills



Ask people to set up in advance

# Set up a local network

Run a short retrospective

Ask for volunteers to run the next one



**What did we learn?**

**It's totally possible to do this!**



Learnt a  
lot of  
New Stuff

Space + time  
to play with  
this stuff =  
AWESOME  
;

PRACTICAL STUFF  
WAS GOOD TO  
SEE REAL EXAMPLES  
OF SECURITY  
ISSUES

SMALL PRACTICAL  
EXAMPLES HELPED  
ME REALLY  
UNDERSTAND.  
DOING ~~IT~~ IS  
GOOD.

MADE ME  
REMEMBER  
STUFF I'D  
FORGOTTEN

+ Good coverage  
of the common  
vulnerabilities

Concrete  
Examples  
(on gov.uk)  
=  
AWESOME  
😊



You'll learn about the topic in more depth  
by preparing to explain it



Be ruthless with your MVP

Running the day well takes effort

Organising an event can be time-consuming

- organising space, facilities and people
- researching topics
- structuring the content
- writing presentations
- preparing practical exercises



**What happened  
next?**

Share what you've made

Blog

# Technology at GDS

Organisations: [Government Digital Service](#)

## Our web security workshop for GDS developers

[Alex Muller](#) and [Jenny Duckett](#), 9 August 2016 — [Chat](#)



---

### GDS technology

A blog about how GDS builds, assembles and runs its software.  
[Find out more.](#)

### Categories



---

### Sign up for updates

 [Email](#)  [Atom](#)

---

### Find out more

[Join the conversation](#)

---

**Running a security workshop** GOV.UK ☆ Team Visible

**A month before** ...

- Panic
- Find people to organise a workshop with
- Choose a day and book a room
- Invite all the juniors
- Invite people
- Talk to the delivery managers of the juniors
- Help rearrange other commitments for people who would like to come
- Collate Taylor Swift references

**A week before** ...

- Find a friendly DM to facilitate a mini-retro at the end of the day
- Put resources on a raspberry pi
- Get GOV.UK apps running on appropriate versions for demos  0/5
- Sort out a local network for playing with
- Sort out wifi for internet access
- Set up an app to receive extracted data
- Make slides
- Email people about setup

**On the day** ...

- Buy biscuits and fruit
- Take pens and post-its
- Take laptop chargers
- Take display adapter - do we know what the projector will have?
- Take photos at the workshop
- Add a card...

**Afterwards** ...

- Send out slides afterwards
- Go through feedback
- Write a blog post about it
- People for the next one!
- Add a card...

Add a card...



Fix the biggest problem for next time

Support the people who come after you

2 workshops have happened since ours

They've taken the format forward in exciting ways we didn't expect







Workshops aren't the end of the journey

**You can do this too**

What can you run a workshop about?





**Jenny Duckett**

@jenny\_duckett



You don't need to be an expert on a topic to help people understand it - creating an opportunity to learn more about it together works too

RETWEETS

3

LIKES

9



You can encourage a culture of learning  
in your organisation



# Cabinet Office

Thanks!

@jenny\_duckett