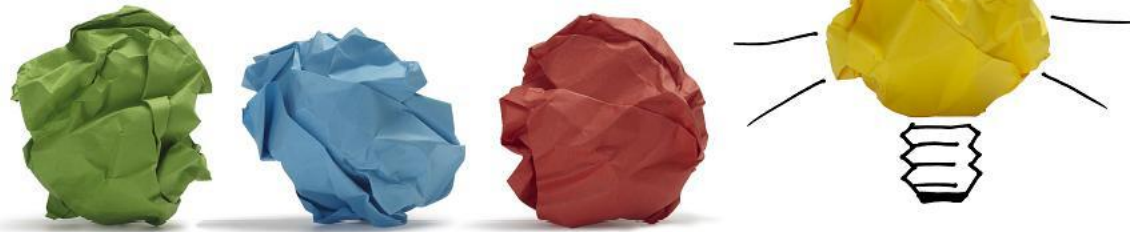


INDUSTRY INSIGHT



Some Stats...

- Digital contributes 3.9 billion to Scotland's Economy and the figures suggest that it will increase 38% between 2018- 2024
- Our sector is growing twice as fast as the rest of the economy
- There are 90,000 employees in digital in Scotland
- There are 8,800 companies in digital in Scotland (pure digital - doesn't include banks etc)
- It is estimated that there will be 12,800 jobs annually in digital in Scotland
- Average salary is 37,500 which is 30% higher than national average of 28k
- CodeClan starting salaries range from 21-28k average is circa 24/25k

What's out there? What should I do?

Here's the typical roles..

Software Developer - Front End

- **Tech**

- **Lang/Framework:** html, JavaScript, CSS, Sass, less, react, Angular, Vue, Redux, Flux
- **Tools:** Gulp, Grunt, Babel, Webpack

- **Who working with**

- UX, UI and product designers. Product owners. Marketing, branding.

- **A day in the life might look like**

- Standup with feature / product team
- Standup with other front-enders to improve FE tech.

- Meet back-end engineers to design APIs

- Working on solidifying style integrations

- Take user stories and requirements and develop to them

- Feed back to designer to verify before moving on.

Salary for a Junior Developer: £24K (average)

Salary for an experienced developer: £30-40K

Software Developer - Back End

- **Tech**

- **Language + Framework:** Java (Spring, Hibernate, Spark ,Dropwizard), C# (.NET MVC), Python (Django, Flask), Node.js, Ruby(rails).
- **Deployment / Cloud** (Docker, Kubernetes, VMWare) (AWS (amazon web services), Azure Cloud, Heroku), Continuous Integration (Jenkins, Travis), SQL (my/postgres)
- **Web Scale:** Kafka or RabbitMQ, Apache Spark

- **Who working with**

- Front-end, Product owner, designers, testers, Dev Ops

- **A day in the life might look like**

- Standup with feature team
- Take requirements from Product Owner / designer and build functionality. Less of a say in functionality.

- Some dev-ops with testing and CI standardisation
- Automation and infrastructure enhancement
- Architecting whole back-end application.

Salary for a Junior Developer: £24K (average)

Salary for an experienced developer: £30-40K

Full-Stack

- Combination of Front-end and back-end
- Pros
 - End-to-end view of the application
 - Can “own” a feature
- Cons
 - Lack of specialist focus
 - No depth to problem solving

Salary for a Junior Developer: £24K (average)
Salary for an experienced developer: £30-40K



Dev-Ops

(Developer Operations)

- **Tech**

- **Tools:** bash/batch/powershell scripting, **CD** and **CI** (continuous deployment and continuous integration) (Jenkins, TravisCI), Networking, Deployment provisioning (Vagrant, Salt, Puppet).
- **PaaS:** AWS, Azure, GCP Heroku, Rackspace, (or own hardware).

- **Who working with**

- Back-end developers, QA (testers)

- **A day in the life might look like**

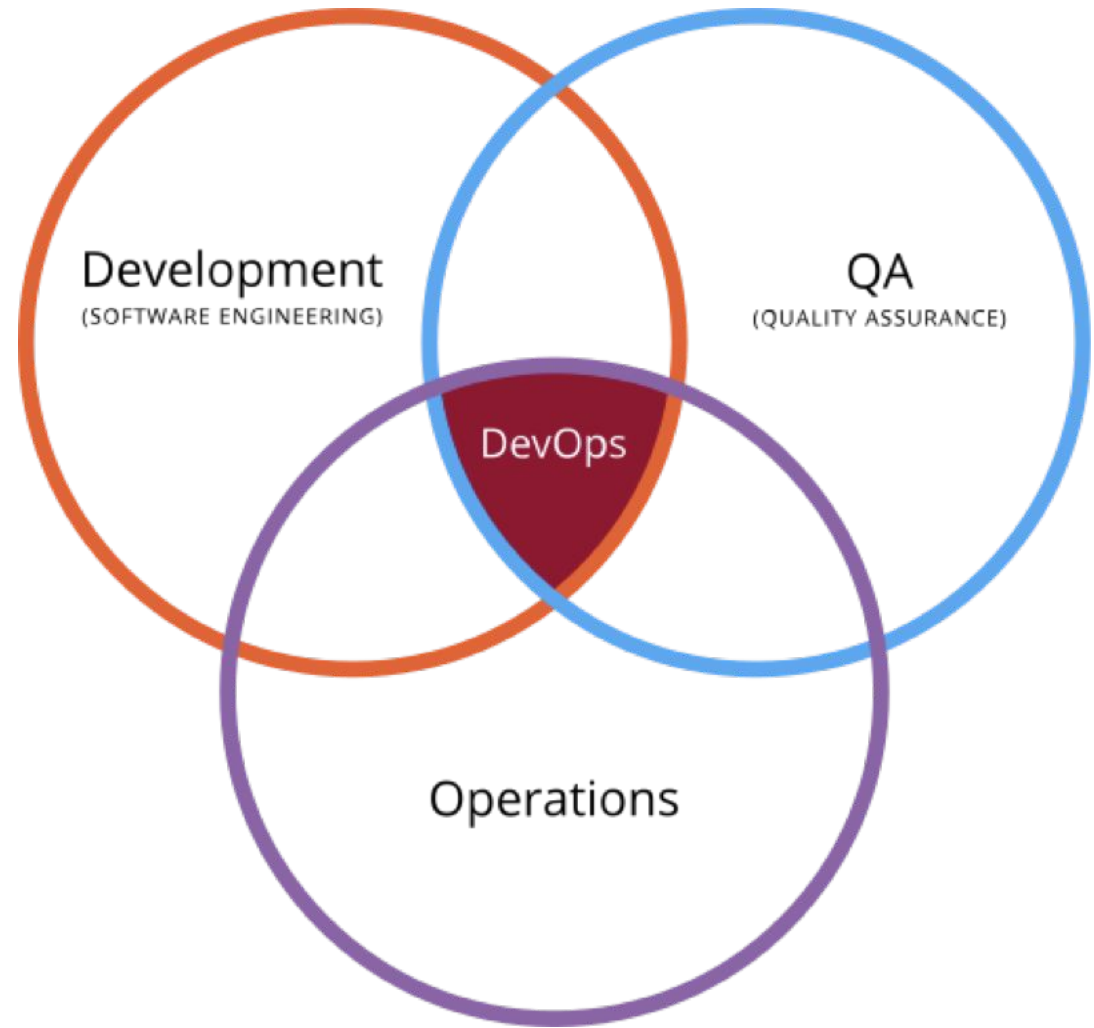
- You might be on call, or have the emergency phone over-night and expect to answer it and deal with live production infrastructure issues. You'll get paid
- Plan deployment and sometimes test cycles

- Manage hardware (if have any)
- Ensure efficient use of cloud resources. Plan outages and infra maintenance.
- Make sure developers have testing resources (CI and CD help)
- Fire fighting

Salary for a Junior DevOps £25-30K (average)

Dev-Ops

- is a software engineering culture and practice that aims at unifying software development (Dev) and software operation (Ops).
- Sysadmin for cloud stuff(?)



Test (QA)

- **Tech**

- **Tools:** bash, batch, Selenium, **various programming languages**,
- Selenium

- Working with other testers to improve tooling

- **Who working with**

- Product Owner, Product Manager, Back-end Developer, Front-End Developer

Salary for a Junior Tester: £22K

Salary for an experienced tester: £25K

- **A day in the life might look like**

- Standup in the product team
- Three Amigos! (PO, Dev, Tester)

Product Owner

- ~~Tech~~ **Tools + Techniques**

- User Story Mapping, BDD

- **Who working with**

- All Development, stakeholders:
Customer, Business, Department

- **A day in the life might look like**

- Standup in the product team
- Understanding users problem with UX/Designer
- Break requirements into **User Stories**

Salary for a Junior Product Owner £36K average

Salary for an experienced PO £40K+



UX

- **Tools + Techniques**

- Service Blueprint, Consumer Journey Map, Personas
- Value Proposition
- Stakeholders Interviews
- Key Performance Indicators
- User Story Mapping

- **Working with**

- Users, Customers, Stakeholders, Dev

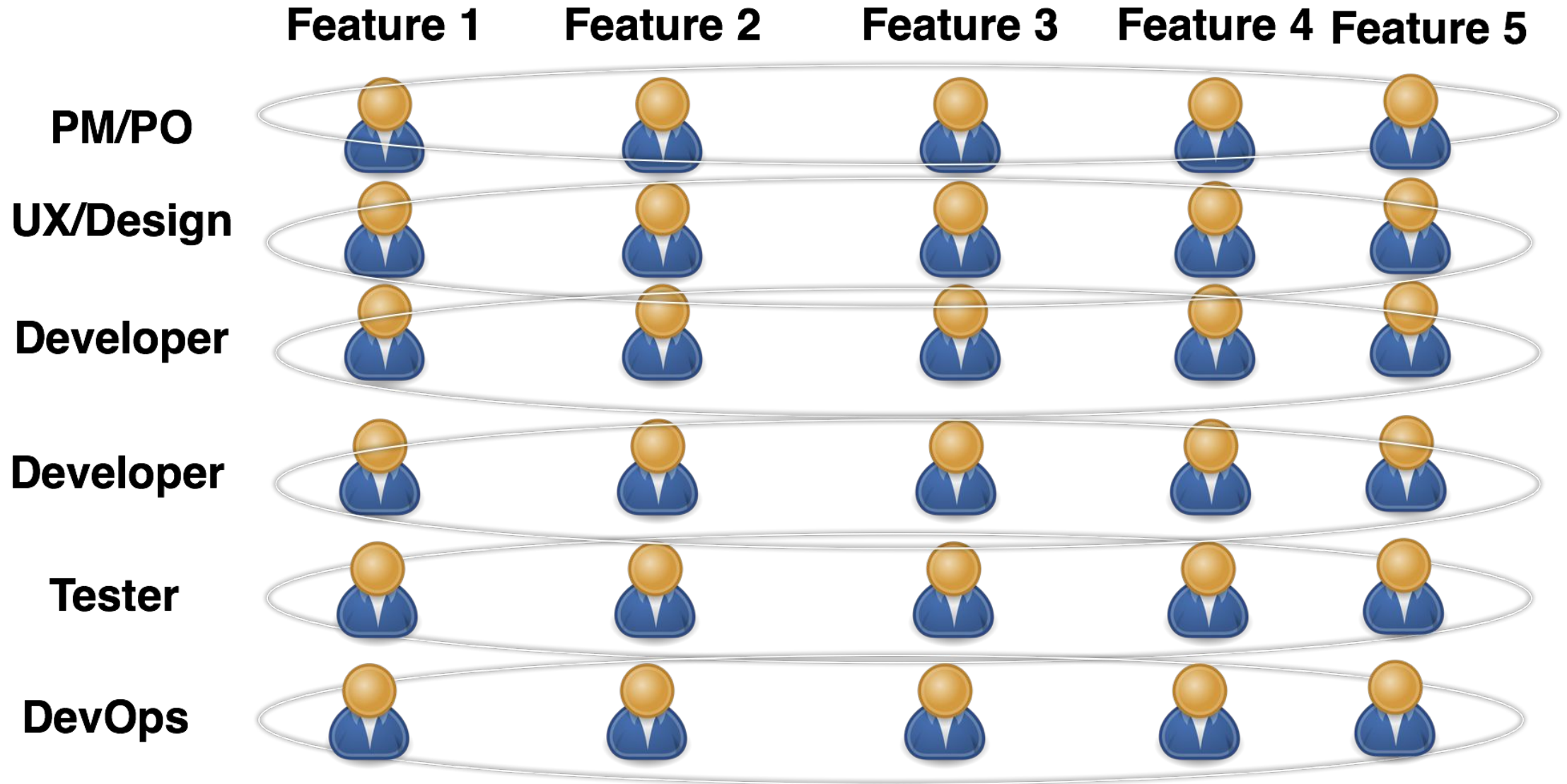
- **A day in the life might look like**

- Interviewing users
- Journey Mapping current workflow
- Understanding the users problem
- Prototyping solutions
- Validating needs

Mythbusting: Designers Make better UX'ers

**Salary for a UX Designer £25 - £32K
(average for a new UX)**

Experienced UX Designer £30-40K



Progression

- Junior X Developer {back-end, front-end}
- Development Team Lead
- Senior X Developer
- Senior Staff X Developer (Corporations usually)
- Principal Developer
- Senior Principal Developer
- CTO?
- Product Owner
- Product Manager
- Head of Product

Outside the “normal” dev team family

Specialist Fields

- Data Analyst
 - Big Data Analyst
 - Machine Learning Analyst
- Games Developer
- Graphics Programming
- Mobile development
 - IOS/Android/ReactNative
 - Low level technology
 - Embedded (microprocessors)
 - Compiler Development
- Blockchain Developer
- Crypto Currency Developer
- Security Specialist
- Pen' Tester / Ethical Hacker

About Me + Questions



Instructor

CodeClan

May 2018 – Present • 2 mos

Edinburgh, City of Edinburgh, United Kingdom



Head of Product

Bird.i

Sep 2017 – Apr 2018 • 8 mos

Glasgow, United Kingdom



Product Manager

ResDiary

Jul 2016 – Aug 2017 • 1 yr 2 mos

Glasgow, United Kingdom



Software Engineer and Product Manager

Senient Systems

May 2015 – Jun 2016 • 1 yr 2 mos

Edinburgh, United Kingdom



Software Developer

Codeplay Software Ltd

May 2008 – May 2015 • 7 yrs 1 mo

- 10 Years in Software
- Lots of opinions
- Love building products with technology that nerds hate and love
- Love teaching peeps cool stuff



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Any Questions?

