



Department  
of Health &  
Social Care



# Developing a pipeline of public health intelligence specialists for the North East

## The Andy Billett Apprenticeship Scheme

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Published 05/12/2004

PHI

APS

POV

JSNA

ABS

CMO

FOMO

OHID

HES

DPH

PIN

QOF



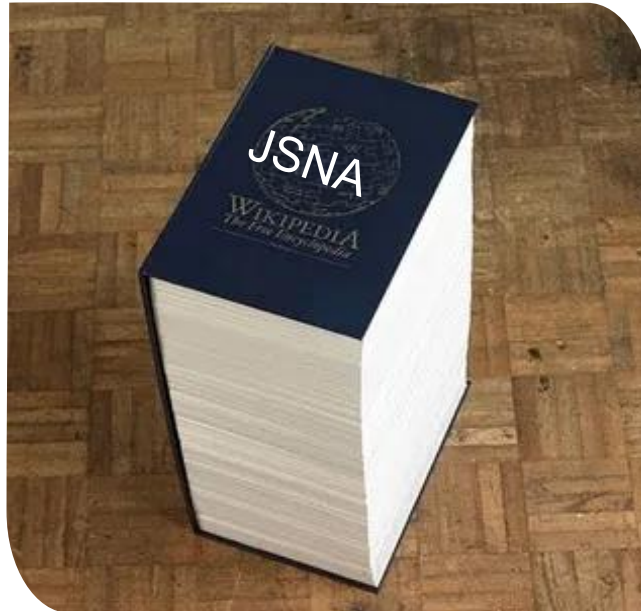
# Public Health Intelligence

Public health knowledge and intelligence professionals help to provide information that's essential both for identifying issues that have a negative effect on people's health, and for planning to deal with those issues.

## Working life

Very broadly, the activities of intelligence professionals include:

- data entry
- analysis of data
- information interpretation
- reporting results of data analysis
- epidemiology
- statistics



We tell the story... with numbers!

Public Health Intelligence Specialists analyse, interpret and present data about public health.

PHI has evolved...

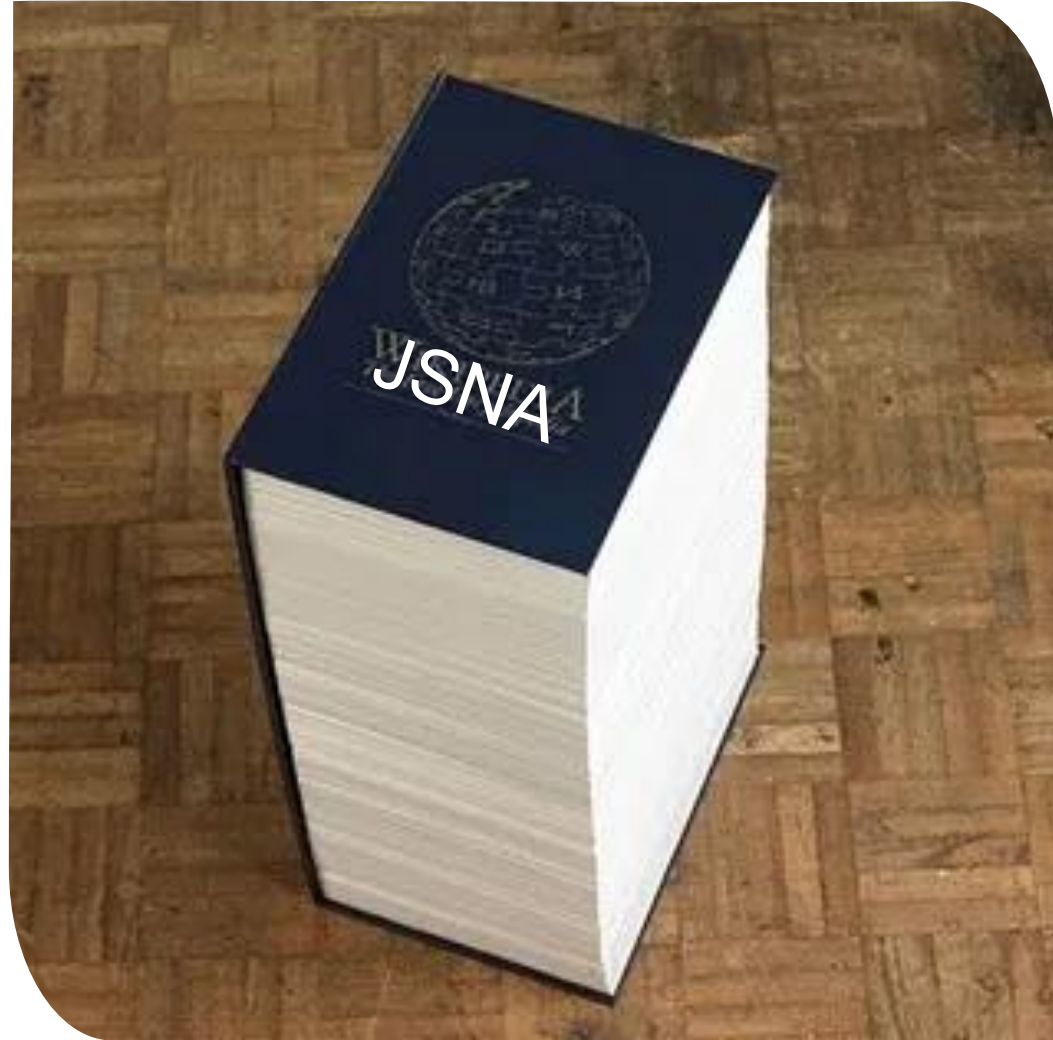
Dashboards

Dashboards

... more dashboards...

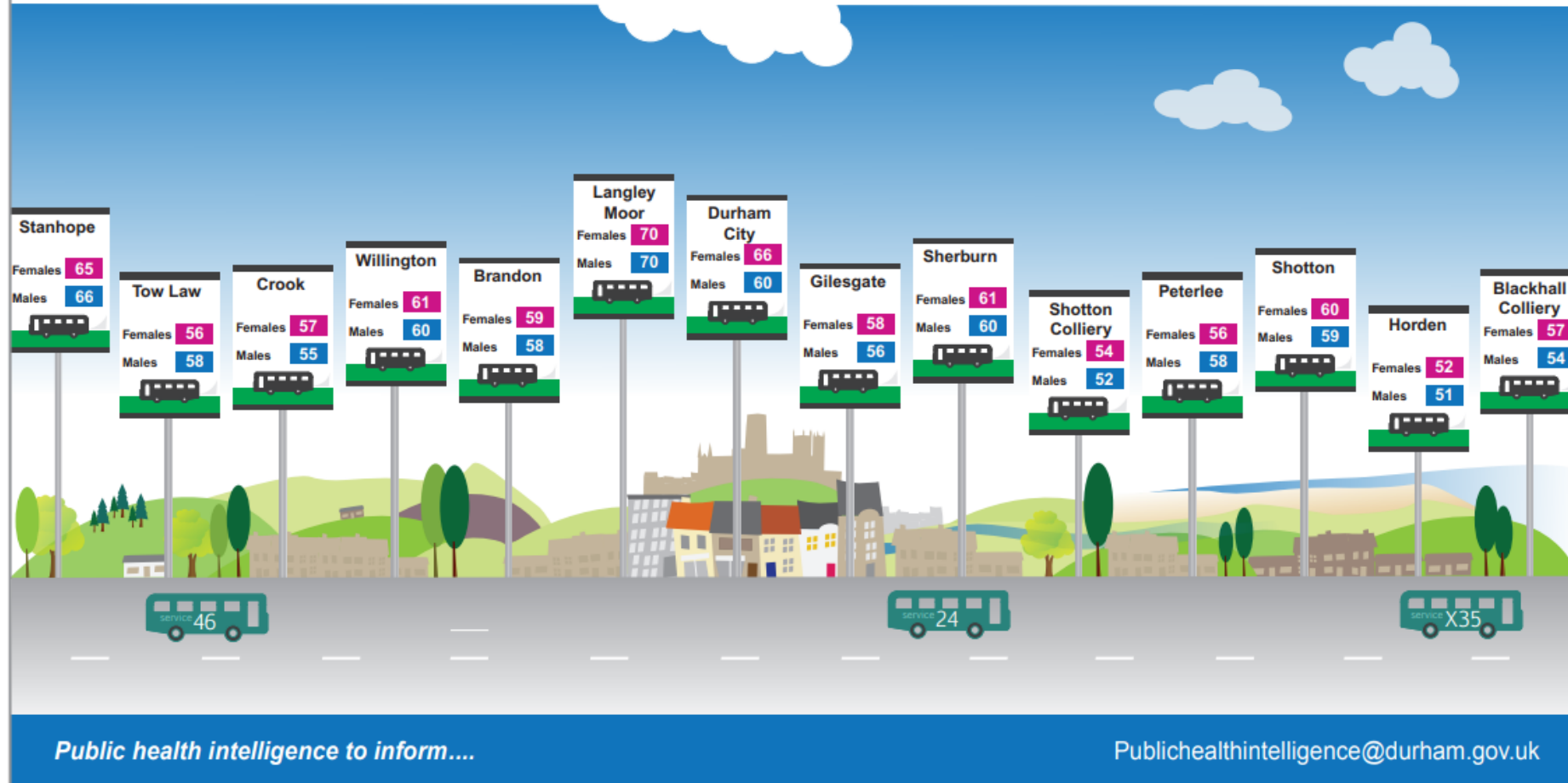
... and it's still evolving.





# Stanhope to Blackhall Colliery - a bus ride across County Durham

Healthy life expectancy at birth, 2009-2013 (years)



Life Expectancy infographic Stanhope



# Headline statistics

Barnsley ▼

For LA or region values, select from the menu above or go to home page for new region or ICS selections

## Life expectancy at birth 2022



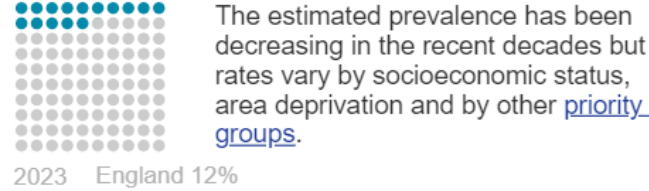
## Infant mortality 2020 - 22



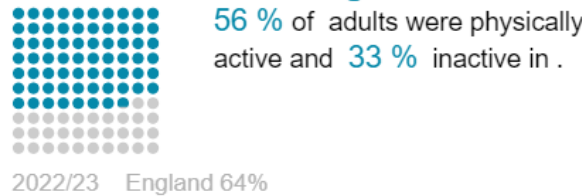
## All cause premature preventable mortality 2023



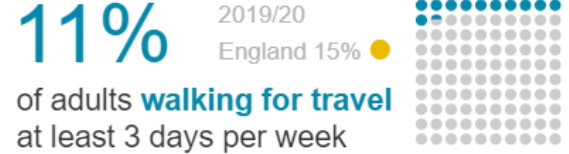
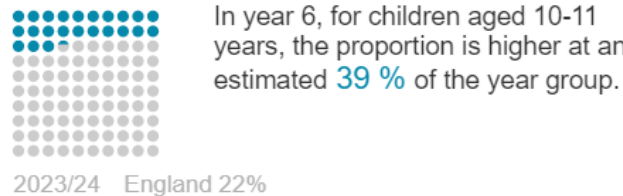
## 15% of current smokers in the adult population ●



## 68% of adults are classified as overweight or obese ●



## 23% of children in reception are overweight or obese ●



Source: OHID. Public Health Profiles. 2024 <https://fingertips.phe.org.uk> © Crown copyright 2024  
 → = Recent trend ● = Comparison to England where available (hover over the icons to see more detail). \* ICB/S value is not yet available via Fingertips but calculated as described in methods section. Blank values mean there is no data for that geography available as yet, e.g. new Cumberland and North Yorkshire unitary authorities.



Picture of Health



# Why a Pipeline of PHI Specialists?

- Number of PHI Specialists in decline
- Data-driven decisions
- Specialists
- Local knowledge and collaboration

What we are doing, and more importantly how we are doing it is changing...

... We need new skills.







	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Financially	Quarter	OrgType	OrgCode	OrgName	RegionCo	RegionNa	Sex	Monitorin	Monitorin	Set quit d	Quit	Not quit	Not know	Quit CO	Quit (%)	Not quit (%)	Not know	Quit CO (%)	Quit CO of quitters (%)	
2	2014-15	1	National	E92000001	England	E92000001	England	All person	Age band	18-34		34689	15715	9501	9473	9859	45.3	27.4	27.3	28.4	62.7
3	2014-15	1	National	E92000001	England	E92000001	England	All person	Age band	35-44		25270	12932	6425	5913	8918	51.2	25.4	23.4	35.3	69
4	2014-15	1	National	E92000001	England	E92000001	England	All person	Age band	45-59		34202	17540	9629	7033	12338	51.3	28.2	20.6	36.1	70.3
5	2014-15	1	National	E92000001	England	E92000001	England	All person	Age band	60 and over		21389	12169	5952	3268	8706	56.9	27.8	15.3	40.7	71.5
6	2014-15	1	National	E92000001	England	E92000001	England	All person	Age band	All ages		117999	59355	32276	26368	40525	50.3	27.4	22.3	34.3	68.3
7	2014-15	1	National	E92000001	England	E92000001	England	All person	Age band	Under 18		2449	999	769	681	704	40.8	31.4	27.8	28.7	70.5
8	2014-15	1	National	E92000001	England	E92000001	England	Female	Age band	18-34		19274	8597	5499	5178	5228	44.6	28.5	26.9	27.1	60.8
9	2014-15	1	National	E92000001	England	E92000001	England	Female	Age band	35-44		12207	6177	3190	2840	4252	50.6	26.1	23.3	34.8	68.8
10	2014-15	1	National	E92000001	England	E92000001	England	Female	Age band	45-59		17731	8914	5109	3708	6287	50.3	28.8	20.9	35.5	70.5
11	2014-15	1	National	E92000001	England	E92000001	England	Female	Age band	60 and over		10946	5993	3229	1724	4282	54.8	29.5	15.8	39.1	71.5
12	2014-15	1	National	E92000001	England	E92000001	England	Female	Age band	All ages		61346	30079	17453	13814	20289	49	28.5	22.5	33.1	67.5
13	2014-15	1	National	E92000001	England	E92000001	England	Female	Age band	Under 18		1188	398	426	364	240	33.5	35.9	30.6	20.2	60.3
14	2014-15	1	National	E92000001	England	E92000001	England	Male	Age band	18-34		15415	7118	4002	4295	4631	46.2	26	27.9	30	65.1
15	2014-15	1	National	E92000001	England	E92000001	England	Male	Age band	35-44		13063	6755	3235	3073	4666	51.7	24.8	23.5	35.7	69.1
16	2014-15	1	National	E92000001	England	E92000001	England	Male	Age band	45-59		16471	8626	4520	3325	6051	52.4	27.4	20.2	36.7	70.1
17	2014-15	1	National	E92000001	England	E92000001	England	Male	Age band	60 and over		10443	6176	2723	1544	4424	59.1	26.1	14.8	42.4	71.6
18	2014-15	1	National	E92000001	England	E92000001	England	Male	Age band	All ages		56653	29276	14823	12554	20236	51.7	26.2	22.2	35.7	69.1
19	2014-15	1	National	E92000001	England	E92000001	England	Male	Age band	Under 18		1261	601	343	317	464	47.7	27.2	25.1	36.8	77.2
20	2014-15	2	National	E92000001	England	E92000001	England	All person	Age band	18-34		32396	14734	8604	9058	9275	45.5	26.6	28	28.6	62.9
21	2014-15	2	National	E92000001	England	E92000001	England	All person	Age band	35-44		23182	11710	5869	5603	8073	50.5	25.3	24.2	34.8	68.9
22	2014-15	2	National	E92000001	England	E92000001	England	All person	Age band	45-59		30284	15743	8141	6400	11091	52	26.9	21.1	36.6	70.5
23	2014-15	2	National	E92000001	England	E92000001	England	All person	Age band	60 and over		19202	10710	5380	3112	7748	55.8	28	16.2	40.3	72.3
24	2014-15	2	National	E92000001	England	E92000001	England	All person	Age band	All ages		107031	53706	28548	24777	36755	50.2	26.7	23.1	34.3	68.4
25	2014-15	2	National	E92000001	England	E92000001	England	All person	Age band	Under 18		1967	809	554	604	568	41.1	28.2	30.7	28.9	70.2
26	2014-15	2	National	E92000001	England	E92000001	England	Female	Age band	18-34		17940	8053	4987	4900	4912	44.9	27.8	27.3	27.4	61
27	2014-15	2	National	E92000001	England	E92000001	England	Female	Age band	35-44		11364	5598	3014	2752	3853	49.3	26.5	24.2	33.9	68.8
28	2014-15	2	National	E92000001	England	E92000001	England	Female	Age band	45-59		15500	7885	4306	3309	5602	50.9	27.8	21.3	36.1	71
29	2014-15	2	National	E92000001	England	E92000001	England	Female	Age band	60 and over		9834	5313	2918	1603	3791	54	29.7	16.3	38.5	71.4
30	2014-15	2	National	E92000001	England	E92000001	England	Female	Age band	All ages		55696	27238	15538	12920	18408	48.9	27.9	23.2	33.1	67.6
31	2014-15	2	National	E92000001	England	E92000001	England	Female	Age band	Under 18		1058	389	313	356	250	36.8	29.6	33.6	23.6	64.3
32	2014-15	2	National	E92000001	England	E92000001	England	Male	Age band	18-34		14456	6681	3617	4158	4363	46.2	25	28.8	30.2	65.3
33	2014-15	2	National	E92000001	England	E92000001	England	Male	Age band	35-44		11818	6112	2855	2851	4220	51.7	24.2	24.1	35.7	69
34	2014-15	2	National	E92000001	England	E92000001	England	Male	Age band	45-59		14784	7858	3835	3091	5489	53.2	25.9	20.9	37.1	69.9
35	2014-15	2	National	E92000001	England	E92000001	England	Male	Age band	60 and over		9269	5297	2462	1509	2957	57.6	26.2	16.1	42.2	72.2



Connections Projects New Open Save Report Update Select Table Composite Relationship Line Note Text Other Edit Delete Copy Paste Show Undo Align Resize SQL script Layout Line mode Display Settings Account

SQL script

PROJECT SQL SCRIPT GENERATION SETTINGS ORDER ITEMS

```
KEY check_function_bodies = false;

COMMENT ON SCHEMA public IS 'standard public schema';

CREATE TYPE public.mpa_rating AS ENUM('G',
'PG',
'PG-13',
'R',
'NC-17');
```

CREATE DOMAIN public."year" integer  
CONSTRAINT year\_check CHECK (VALUE >= 1901 AND VALUE <= 2155) NULL;

```
CREATE TABLE public.actor(  
actor_id serial NOT NULL,  
first_name character varying(45) NOT NULL,  
last_name character varying(45) NOT NULL,  
last_update timestamp without time zone NOT NULL DEFAULT now(),  
CONSTRAINT actor_pkey_incl PRIMARY KEY(actor_id)  
);
```

```
CREATE INDEX idx_actor_last_name ON public.actor USING btree  
(last_name NULLS LAST);
```

```
CREATE TABLE public.country(  
country_id serial NOT NULL,  
country character varying(50) NOT NULL,  
last_update timestamp without time zone NOT NULL DEFAULT now(),  
CONSTRAINT country_pkey PRIMARY KEY(country_id)  
);
```

```
CREATE TABLE public.city(  
city_id serial NOT NULL,  
city character varying(50) NOT NULL,  
last_update timestamp without time zone NOT NULL DEFAULT now(),  
CONSTRAINT city_pkey PRIMARY KEY(city_id)  
);
```

Overwrite existing files

COPY TO CLIPBOARD SAVE SCRIPT CLOSE

GRAPHICS SQL SCRIPT

Lock dimensions

MAIN DIAGRAM Add Diagram

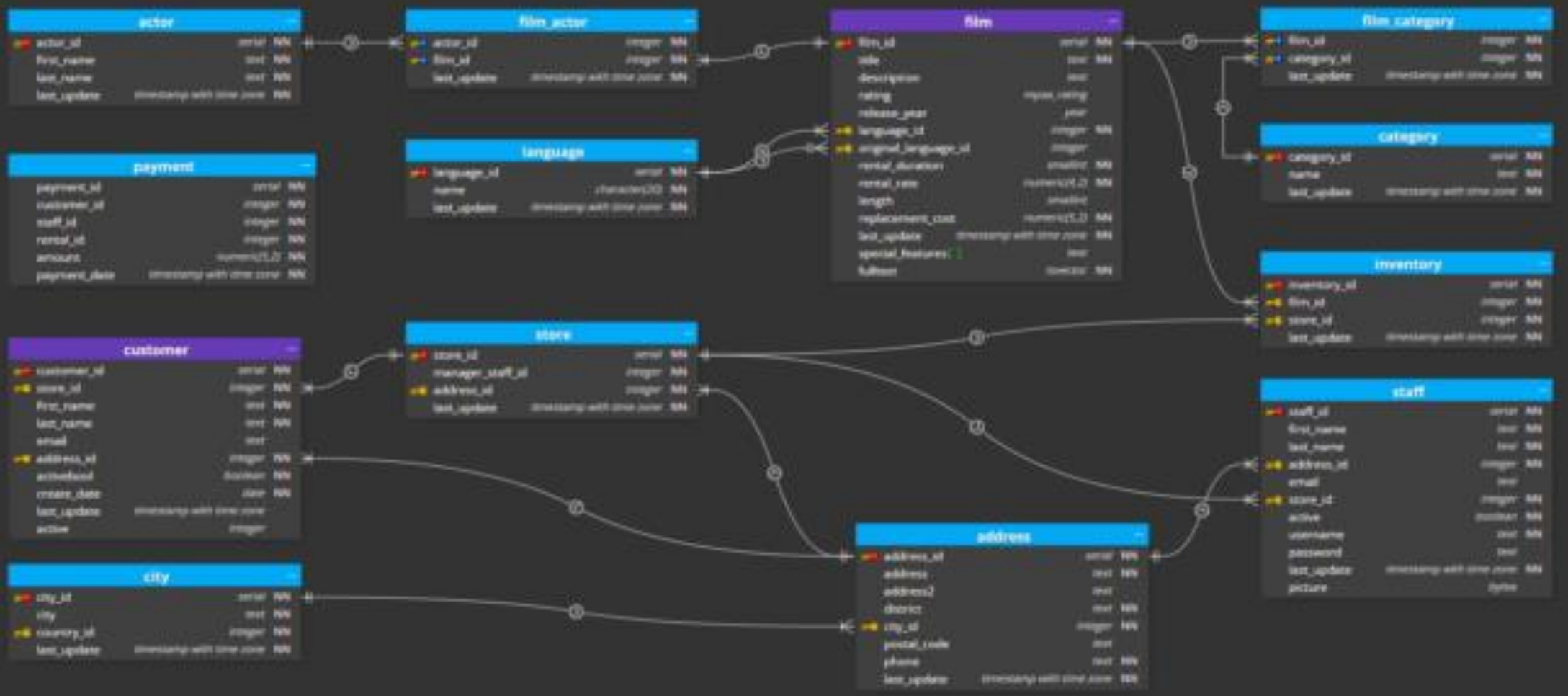
Project name: Pagla Local | Type: PostgreSQL | Last saved: 24.10.2022 03:53 | File path: E:\Temp\test5.dmm

Zoom 81% Feedback Notifications



Generate SQL script

### Sample - PostgreSQL Database Structure



# Andy Billett





# The Andy Leve 4 Data Science Apprenticeship Scheme



11 apprentices  
2 year fixed term contract  
Apprentice levy funds the course  
Salary paid by host

Employed by NECS  
Training provider is QA Ltd  
15 host organisations  
Programme managed by LKIS



It would

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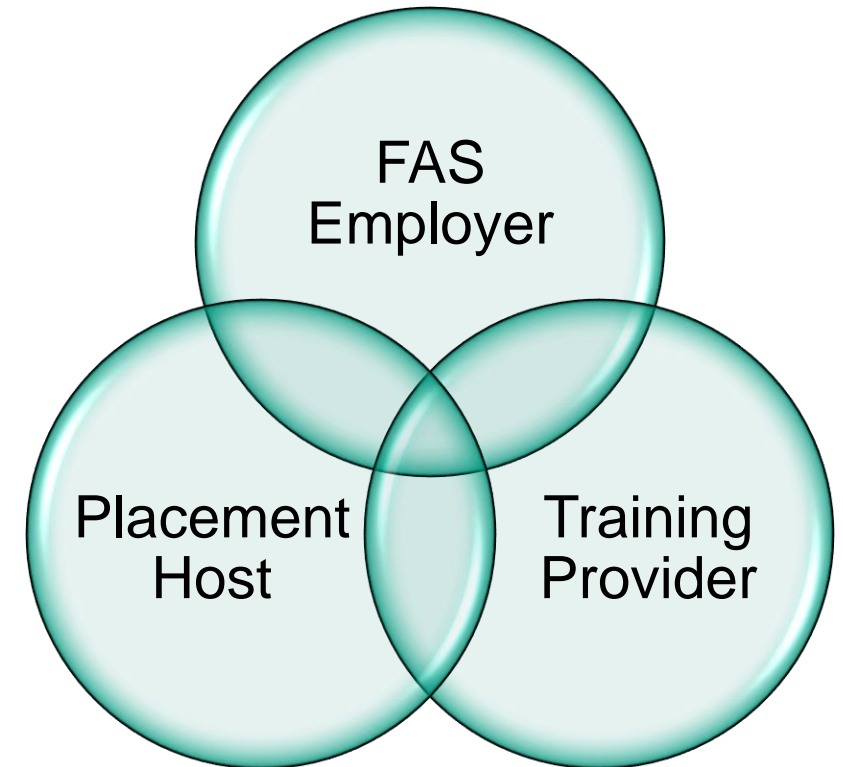


# NECS acts as the employer for all the apprentices

The Flexible Apprenticeship Scheme (NECS) acts as the employer for all apprentices.

- Manages recruitment and on-boarding of apprentices – Collaborative Recruitment and Selection
- Manages annual leave, sickness absence, any employment issues, disciplinarys
- Monitors progress through
- Liaises with placement employers to gain feedback and to monitor progression of apprentices
- In partnership with LKIS/OHID as the client/customer

High quality training provider commissioned to deliver the apprenticeship training for PHIA – QA Ltd



# Experience of apprentice - Lily

**Started at Gateshead Council August 2023 and became a permanent member of the team in June 2024. I'm almost at the end of my apprenticeship now but have enjoyed learning new concepts and applying them in my role.**

**Throughout my time at Gateshead, I have been involved in a range of projects and tasks, including:**

- **Needs Assessments (children and young people's mental health, domestic abuse)**
- **Contract Monitoring (monitoring of LARC and EHC data)**
- **Substance Misuse data updates**

**I have enjoyed the mix of learning the content, connecting with the other apprentices, and becoming part of the team at Gateshead.**



**Thank you for listening!**

**Any questions?**