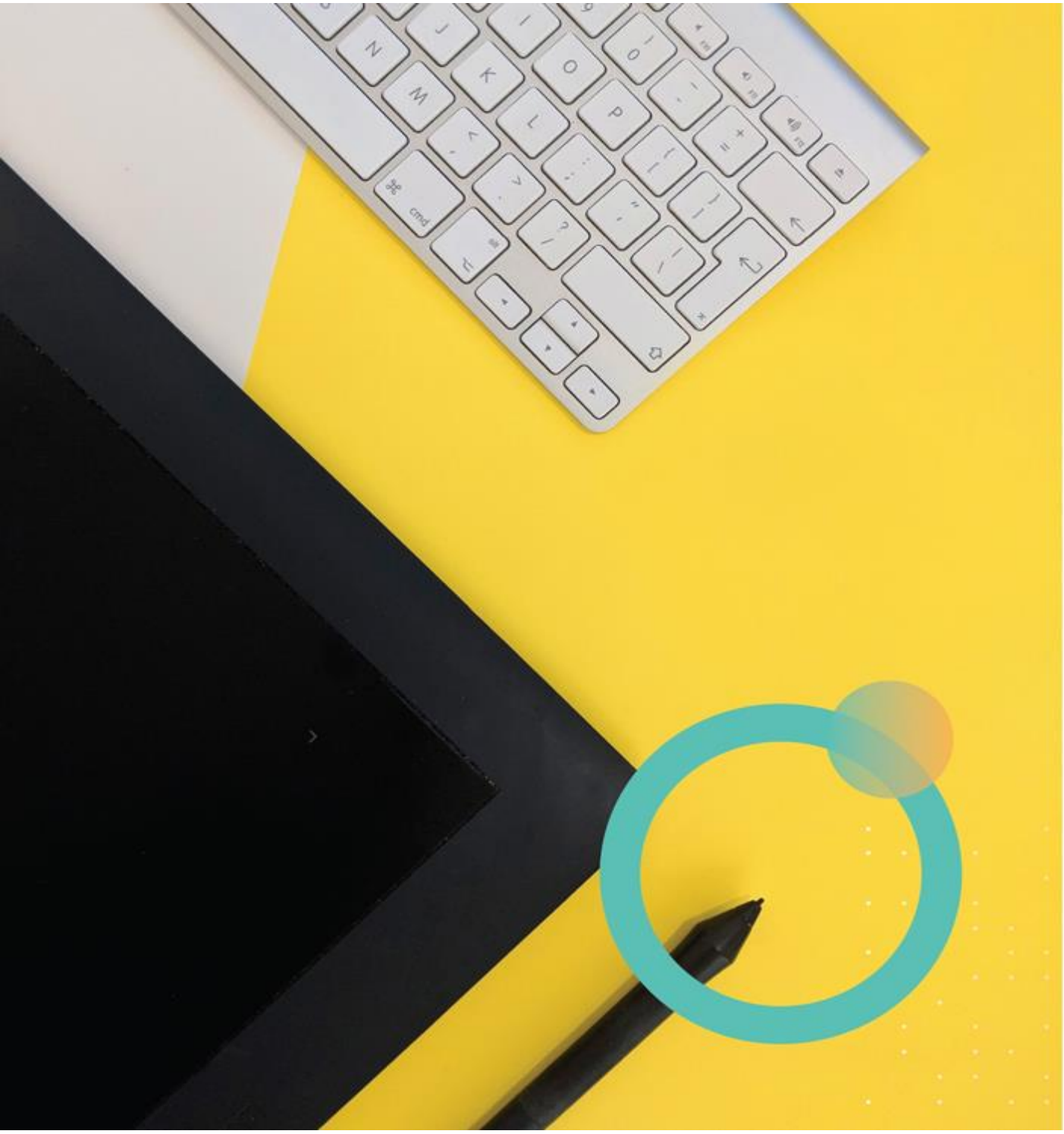

Your learning plan
Data Engineer
Level 5 Apprenticeship
19 Months
BPP



Introduction.

Embarking on your study journey is the start of an exciting new phase of your career. This learning plan provides vital information you will need as you progress throughout your programme. Keep it safe and refer back to it during your study journey to help keep you motivated, chart your progress and ensure you are on track.

It includes:

A. A programme overview that outlines the structure of your programme and the key stages of your journey
B. Details on the assessment process, how you will be assessed throughout and at the end of your programme
C. Your study timetable to allow you to plan your time effectively and work through your programme in a structured and meaningful way
D. Useful information and links to remind you of the specific details of your chosen programme
E. A glossary of useful terms

B. How you will be assessed throughout your programme.

The Assessment Process

BPP has designed a programme that allows you to understand, develop and demonstrate that you have acquired the skills and abilities of your chosen profession.

Understand
Your programme has a standard set of competencies under Knowledge, Skills and Behaviours. It is these competencies that you will focus on throughout the programme. The programme is flexible, and you will learn using various tools, ranging from webinars and e-learnings to recordings to classroom courses.

Develop
This makes your programme so much more than just a qualification or degree. You will be asked by your tutors and coach to reflect on what you've learned on the programme and how this applies to your workplace. Assessments allow you to test your new knowledge, and we will identify ways to improve further. Regular diagnostic tests allow us to track your confidence against each Knowledge, Skill and Behaviour and are discussed in your reviews.

Demonstrate
Your learning plan sets out the assessments for each module and when they are due. Application of your Knowledge, Skills and Behaviours at work will likely be assessed through personal reflections. Your coach will then give you feedback on the learning outcomes, what grade this would likely achieve at your End Point Assessment and what steps you can take to develop further. Every apprenticeship has a formal assessment at the end, which is usually graded – pass, fail, merit or distinction – and carried out by an independent assessment organisation. The hard work will have paid off, and you can celebrate being a fully accredited professional.

Once you have completed the On Programme stage, your Coach and employer will agree if you are ready to enter Gateway and move to the End Point Assessment.

The full assessment plan for your programme can be found here.

An external assessor conducts End Point Assessment. For your programme, two elements for assessment need to be completed to finish your apprenticeship:

1. A portfolio – produced towards the end of the apprenticeship, containing evidence from real work projects that have been completed during the apprenticeship, usually towards the end, and which, taken together, cover the criteria of the standard associated with assessment method 2 – professional discussion, which is a part of the end point assessment
2. A scenario demonstration – allowing the apprentice to demonstrate competence of skills under controlled conditions.
3. A structured interview with an assessor - exploring what has been produced in the portfolio.

Your grade

The external assessor will decide on the grade to be awarded based on their scoring of the two components of the End Point Assessment: your Scenario Demonstration and your Professional Discussion. You will be awarded either a Pass, Merit or Distinction.

A distinction will be achieved if you have been seen as an outstanding employee, regularly going beyond what is required to be competent in the role and you will be seen to have enormous potential in the future.

C. Your study timetable/Curriculum Plan

Your programme is broken down into modules, each with assessments and deadlines. This helps you and your Coach monitor your progress and ensure you are on track.

By supporting you on this programme, your employer is committed to allowing you off the job training within your contracted hours to develop yourself in line with the programme's Knowledge, Skills and Behaviours. This development time will include learning new relevant tasks, embedding your knowledge in your role, practical workplace training, spending development time with your Line Manager, attending online or face-to-face courses, writing assignments/assessments and directed self-study hours.

The table below is your programme outline and you will help to determine a more detailed timetable with specific dates before commencing your study The total 'On Programme' hours recorded make up your BPP commitment for the Knowledge (Professional Qualification) learning and the Skills and Behaviour assignment completion. All workplace development and training will be in addition to these hours, and all must be recorded within your off the job tracker.

Apprentices and line managers will have regular progress review calls at least every 12 weeks. These calls will include discussions on learning and progress (including off the job training), future progression and development opportunities, development of English and Maths skills, challenges and concerns and target setting. Apprentices also have additional touch points with tutors and coaches throughout their apprenticeship, with additional progress reviews scheduled to support apprentices if they are not progressing.

You are required to complete "active learning" at least every four weeks. 'Active Learning' is any learning related to your apprenticeship that takes place within your working hours that is not undertaken as part of your day-to-day job role. For example, Attending a class (face to face or online), watching a recording, completing activities on the Hub/VLE, reviewing materials, completing research, working on an assignment, or applying new, specific knowledge, skills and behaviours in your workplace.

Modules	Module % of programme	Cumulative %	Module Activity	Study period (months)	Assessment method	Assessment deadline (month)	Learning resources	Webinar hours	Achievement ladder steps	Directed self-study hours	Total hours

Induction	0%	0%	Induction	0 - 1	N/A	N/A	Webinars, E-Learning	4	-	-	4
Module 1	3%	3%	Data Fundamentals	1	N/A	N/A	Webinars, E-learning	12	0	12	24
Module 2	3%	6%	Databases and Data Lakes	2	N/A	N/A	Webinars, E-learning	15	0	17	32
Portfolio Submission 1	0%	6%	Portfolio Submission	**1 - 3**	**Portfolio Submission**	3	Coaching 1:1	0	24	0	24
Module 3	7%	13%	Programming and Scripting Essentials	3 - 5	N/A	N/A	Webinars, E-learning	27	0	27	54
Module 4	7%	20%	Networks Essentials and Cyber Security	5 - 6	N/A	N/A	Webinars, E-learning	12	0	12	24
Portfolio Submission 2	0%	20%	Portfolio Submission	**4 - 6**	**Portfolio Submission**	**6**	Coaching 1:1	0	24	0	24
Module 5	5%	25%	Cloud Engineering	6 - 7	N/A	N/A	Webinars, E-learning and Coaching	24	0	22	46
Module 6	2%	27%	Data Collection and Ingestion 1	7 - 8	N/A	N/A	Webinars, E-learning	9	0	12	21
Module 7	3%	30%	Data Collection and Ingestion 2	8	N/A	N/A	Webinars, E-learning	12	0	12	24
Portfolio Submission 3	0%	30%	Portfolio Submission	**6 - 8**	**Portfolio Submission**	**8**	Coaching 1:1	0	24	0	24
Module 8	5%	35%	Data Pipelines	9 - 10	N/A	N/A	Webinars, E-learning	21	0	22	43
Module 9	4%	39%	Data Responsibilities	10 - 11	N/A	N/A	Webinars, E-learning	18	0	12	30
Portfolio Submission 4	0%	39%	Portfolio Submission	**9 - 11**	**Portfolio Submission**	**11**	Coaching 1:1	0	24	0	24
Module 10	3%	42%	Production Environment	11 - 12	N/A	N/A	Webinars, E-learning	15	0	12	27
Module 11	3%	45%	Data Products	13 - 14	N/A	N/A	Webinars, E-learning	15	0	12	27
Portfolio Submission 5	0%	45%	Portfolio Submission	**13 - 15**	**Portfolio Submission**	**15**	Coaching 1:1	0	24	0	24
Module 12	3%	48%	Data Futures	14 - 15	N/A	N/A	Webinars, E-learning	9	0	0	11
On Programme			-	-	-	-		193	120	174	**487**

EPA	-	-	**End Point Assessment**	**16 - 19**	**Portfolio, professional discussion**	**19**	Webinars, E-learning	-	-	-	-

Data Engineer – Timetable

Please ensure that you plan the below in your diary, attend all sessions and review the content on the Hub that supports these sessions. If you cannot attend any of these sessions due to exceptional circumstances, please inform your coach. Please note that your coach will schedule regular (4-6 weekly) review meetings with you to support and track your progress.

Your Induction – Wednesday 18th September 2024 - Access via link.						
Date	**Category**	**Module**	**Session**	**Start Time**	**End Time**	**Location**
Data Fundamentals						
26-Sep-24	**Webinar**	Data Fundamentals	Fundamentals of the data-driven enterprise	14:00	17:00	Access via the HUB
3-Oct-24	**Webinar**	Data Fundamentals	Introduction to data quality	14:00	17:00	Access via the HUB
10-Oct-24	**Webinar**	Data Fundamentals	Introduction to managing data projects and products	14:00	17:00	Access via the HUB
17-Oct-24	**Webinar**	Data Fundamentals	Introduction to reliable data architectures	14:00	17:00	Access via the HUB
Databases & Data Lakes						
24-Oct-24	**Webinar**	Databases & Data Lakes	Storing and querying data	14:00	17:00	Access via the HUB
31-Oct-24	**Webinar**	Databases & Data Lakes	Schemes and Integration	14:00	17:00	Access via the HUB
7-Nov-24	**Webinar**	Databases & Data Lakes	Advanced SQL	14:00	17:00	Access via the HUB
14-Nov-24	**Webinar**	Databases & Data Lakes	Database administration and optimisation	14:00	17:00	Access via the HUB
21-Nov-24	**Webinar**	Databases & Data Lakes	NoSQL fundamentals	14:00	17:00	Access via the HUB
Programming & Scripting Essentials						
28-Nov-24	**Webinar**	Programming & Scripting Essentials	Linux for Data Engineers	14:00	17:00	Access via the HUB
5-Dec-24	**Webinar**	Programming & Scripting Essentials	Version Control	14:00	17:00	Access via the HUB

12-Dec-24	Webinar	Programming & Scripting Essentials	Python for Data Engineers	14:00	17:00	Access via the HUB
19-Dec-24	Webinar	Programming & Scripting Essentials	Data Stuctures and OOP	14:00	17:00	Access via the HUB
9-Jan-25	Webinar	Programming & Scripting Essentials	Data Manipulation	14:00	17:00	Access via the HUB
16-Jan-25	Webinar	Programming & Scripting Essentials	Algorithmic Thinking	14:00	17:00	Access via the HUB
23-Jan-25	Webinar	Programming & Scripting Essentials	Parallel Programming & Spark for Data Engineers	**9:30**	**16:30**	Access via the HUB
30-Jan-25	Webinar	Programming & Scripting Essentials	Practical Programming Skills	14:00	17:00	Access via the HUB
Network Essentials & Scripting Essentials						
6-Feb-25	Webinar	Network Essentials & Scripting Essentials	Introduction to Networks	14:00	17:00	Access via the HUB
13-Feb-25	Webinar	Network Essentials & Scripting Essentials	Cyber Security Essentials	14:00	17:00	Access via the HUB
20-Feb-25	Webinar	Network Essentials & Scripting Essentials	Designing Secure Architecture	14:00	17:00	Access via the HUB
27-Feb-25	Webinar	Network Essentials & Scripting Essentials	Security Policy and Incident Response	14:00	17:00	Access via the HUB
Cloud Engineering						
6-Mar-25	Webinar	Cloud Engineering	Cloud Fundamentals & Data in the Cloud	**9:30**	**16:30**	Access via the HUB
13-Mar-25	Webinar	Cloud Engineering	Containers and Orchestration	14:00	17:00	Access via the HUB
20-Mar-25	Webinar	Cloud Engineering	Deploying Cloud Data Products	14:00	17:00	Access via the HUB
27-Mar-25	Webinar	Cloud Engineering	Migrations, Archiving, Monitoring and Disaster Recovery	14:00	17:00	Access via the HUB
3-Apr-25	Webinar	Cloud Engineering	Cloud Solutions Integration	14:00	17:00	Access via the HUB
10-Apr-25	Webinar	Cloud Engineering	Putting it all together	14:00	17:00	Access via the HUB
Data Collection & Ingestion P1						
17-Apr-25	Webinar	Data Collection & Ingestion P1	Introduction to collecting data	14:00	17:00	Access via the HUB
24-Apr-25	Webinar	Data Collection & Ingestion P1	Heterogenous data ingestion patterns	14:00	17:00	Access via the HUB
1-May-25	Webinar	Data Collection & Ingestion P1	APIs and microservices for Data Engineers	14:00	17:00	Access via the HUB
8-May-25	Webinar	Data Collection & Ingestion P1	Data collection quality and ingestion risks	14:00	17:00	Access via the HUB
Data Collection & Ingestion P2						

15-May-25	Webinar	Data Collection & Ingestion P2	Event-driven architectures	14:00	17:00	Access via the HUB
22-May-25	Webinar	Data Collection & Ingestion P2	Advanced Kafka scenario	14:00	17:00	Access via the HUB
29-May-25	Webinar	Data Collection & Ingestion P2	Python libraries for rich data collection	14:00	17:00	Access via the HUB
5-Jun-25		Data Collection & Ingestion P2	Monitoring an ingestion service	14:00	17:00	Access via the HUB
Data Pipelines						
12-Jun-25	Webinar	Data Pipelines	Data integration techniques beyond ETL	14:00	17:00	Access via the HUB
19-Jun-25	Webinar	Data Pipelines	Workflow management for data pipelines	14:00	17:00	Access via the HUB
26-Jun-25	Webinar	Data Pipelines	On-premise resource management	14:00	17:00	Access via the HUB
3-Jul-25	Webinar	Data Pipelines	Scalability (From data pipelines to data architectures)	14:00	17:00	Access via the HUB
10-Jul-25	Webinar	Data Pipelines	Service management and EPA prep.	14:00	17:00	Access via the HUB
17-Jul-25	Webinar	Data Pipelines	Practical data cleansing and enrichment Testing and debugging data pipelines	**9:30**	**16:30**	Access via the HUB
Data Responsibilities						
24-Jul-25	Webinar	Data Responsibilities	Legal aspects of Data Engineering and privacy-by-design	14:00	17:00	Access via the HUB
31-Jul-25	Webinar	Data Responsibilities	Ethics and anonymisation	14:00	17:00	Access via the HUB
7-Aug-25	Webinar	Data Responsibilities	Data governance and stewardship	14:00	17:00	Access via the HUB
14-Aug-25	Webinar	Data Responsibilities	Compliance and reporting on risks. Relevant tools	14:00	17:00	Access via the HUB
21-Aug-25	Webinar	Data Responsibilities	Stakeholder engagement and communication	14:00	17:00	Access via the HUB
28-Aug-25	Webinar	Data Responsibilities	Data Teams' roles and responsibilities and Consolidation	14:00	17:00	Access via the HUB
Production Environment						
4-Sep-25	Webinar	Production Environment	Advanced testing and deployment strategies	14:00	17:00	Access via the HUB
11-Sep-25	Webinar	Production Environment	Introduction to MLOps and model deployment	14:00	17:00	Access via the HUB
18-Sep-25	Webinar	Production Environment	Technical debt management and maintenance	14:00	17:00	Access via the HUB
25-Sep-25	Webinar	Production Environment	Performance monitoring and service management	14:00	17:00	Access via the HUB
2-Oct-25	Webinar	Production Environment	Change management. EPA Prep	14:00	17:00	Access via the HUB

Data Products						
9-Oct-25	**Webinar**	Data Products	Advanced data products - beyond reports and dashboards	14:00	17:00	Access via the HUB
16-Oct-25	**Webinar**	Data Products	User requirements. Human-centric design	14:00	17:00	Access via the HUB
23-Oct-25	**Webinar**	Data Products	Business requirements. From scalability to compliance	14:00	17:00	Access via the HUB
30-Oct-25	**Webinar**	Data Products	Data visualisation and storytelling	14:00	17:00	Access via the HUB
6-Nov-25	**Webinar**	Data Products	Building an AI-enabled data product	14:00	17:00	Access via the HUB
Data Futures						
13-Nov-25	**Webinar**	Data Futures	Building an AI-enabled data product	14:00	17:00	Access via the HUB
20-Nov-25	**Webinar**	Data Futures	Continuous professional development directions	14:00	17:00	Access via the HUB
27-Nov-25	**Webinar**	Data Futures	Re-cap of sustainability considerations	14:00	17:00	Access via the HUB

D. Useful Information

Below you will find a list of useful documents and links that will help you to understand your programme better.

Apprenticeship Standard	The Apprenticeship Standard is the government approved document that sets out the qualifications and the high-level learning outcomes for your programme under the headings of Knowledge, Skills and Behaviours.
Handbook	An overview of Apprenticeships at BPP, including the policies and procedures. You will find the Apprenticeship Handbook on your Hub.

E. Glossary.

Below you will find a list of useful terms that will help you to understand the terminology in your learning plan.

Module % of programme	This shows how much of your programme is attributed to this module.

Cumulative %	This shows how completing each module gets you to the end of your programme.
Study Period	The study period shows at which point you will be covering this module in your programme.
Assessment Method	Shows how you will have to evidence you have passed that module. There are a range of different assessment methods from exams, and assignments to the submission of workplace reflections.
Assessment Deadline	Shows when the assessment is due
Learning Resources	Show how you will study the programme and what resources are available to you.
The Hub	Within the Hub you can access your learning resources, check progress and interact with colleagues and peers on the same programme.
Online Classroom	BPP's Online Classroom sessions are pre-recorded sessions you can access through your computer or phone at a time and place to suit you.
Online Classroom Live	Online Classroom Live sessions are delivered 'live' (a set time during the day) and offer an interactive session to engage with your tutor and colleagues on the same programme
Textbook	Learning resources available for you to study

For more information,
visit **bpp.com**