

# **Digital by Design (DxD) Apprenticeships: Technical Specification Guide**

## **Level 4 Data Analyst with Power BI**



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## **1. About this guide**

Level 4 Data Analyst with Power BI is one of QA's portfolio of digital-by-design (DxD) apprenticeships.

To help prepare and support you for digital learning, this guide outlines the different technologies used to deliver our apprenticeship, with guidance on what you need to do to ensure you can access them as and when you need to during your programme.

Use this document to ensure everything works correctly on your device. If you experience any issues, please flag it to your IT department.

## **2. Technical requirements**

1. Internet connectivity
2. Internet browser
3. Webcam
4. Enabled microphone (laptop/desktop)

As part of the digital journey, our apprenticeships require you to connect with key contacts such as your Digital Learning Consultant (DLC), via web conferencing.



### **3. Key technologies and digital platforms**

There are two types of link included below.

- Those that should be directly accessible via any modern web browser.
- Those that are links to download, install and configure software applications.



The links in the table below should be directly accessible via any modern web browser.

Using a laptop/pc build provided by your organisation:

1. Select each link or enter them into your web browser address bar.
2. Can you successfully reach the intended page?
3. If no, please raise this with your internal IT team.

Platform	Platform purpose	URL(s)	Successful?
Webex	<p>WebEx is QA's main tool for video conferencing, online meetings and screen share. You will have your sign up and programme launch sessions as well as ongoing reviews via WebEx.</p> <p><b>Important</b> – You will need to be able to download learning files such as training data sets, slide decks, etc, shared by the instructor via Webex file share – this is sometimes restricted by IT policies. You will not be asked to upload files via Webex. See the 'Alternative file sharing' section (page 21) for more information on this.</p>	<a href="https://www.webex.com">https://www.webex.com</a>	



<b>Microsoft Teams</b>	MS Teams is an alternative means of video conferencing, if Webex is not enabled in your organisation. If you will be unable to use Webex, please ensure that this is highlighted before sign-up.	<a href="https://teams.microsoft.com">https://teams.microsoft.com</a>	
<b>Bud</b>	Bud is QA's DxD apprenticeship delivery platform. This is where you will access all your learning activity instructions, submit tasks, communicate with your DLC, and keep track of your progress. Your DLC will also have access to a dashboard from where they can monitor your progress.	<a href="https://web.bud.co.uk">https://web.bud.co.uk</a>	
<b>BKSB</b>	BKSB is an online platform for assessing your English and Math functional skills. You will be required to take a functional skills assessment as part of your application process.	<a href="https://qa.bksblive2.co.uk/bksbLive2/Login">https://qa.bksblive2.co.uk/bksbLive2/Login</a>	
<b>QA Evaluations</b>	At certain intervals, from the beginning of your programme to completion,	<a href="https://evaluation.qa.com">https://evaluation.qa.com</a>	



	QA would like to get your feedback on your experience of the programme and support. This will be done using surveys.		
<b>SCORM Cloud</b>	SCORM Cloud is a cloud-based course delivery platform that QA uses in the delivery of courses.	<a href="https://cloud.scorm.com">https://cloud.scorm.com</a>	
<b>Zendesk Chat</b>	This is a live chat tool used by QA to provide you with real time, live support.	<a href="https://v2.zopim.com">https://v2.zopim.com</a>	
<b>The QA platform</b>	The QA platform is QA's enterprise digital skills platform, providing Learning Paths, hands-on labs and technical skills assessments. It may be used in any IT or technical programme involving coding.	<a href="https://app.qa.com">https://app.qa.com</a>	
<b>GoToMyPC</b>	QA uses GoToMyPC to share remote machine, enabling you to connect to a virtual pc with the requisite software and training files. The URL is extended with an embedded GUID #.	<a href="https://www.gotomypc.com/members/login.tmp">https://www.gotomypc.com/members/login.tmp</a>  Please see our GoToMyPC guidance doc for test logins.  <a href="https://support.logmeininc.com/gotomypc/help/what-are-the-optimal-firewall-configurations-1110617141">https://support.logmeininc.com/gotomypc/help/what-are-the-optimal-firewall-configurations-1110617141</a>	



<b>Alternative to GoToMyPC</b>	QA offers an alternative VM in the case that GoToMyPC is not accessible for you (prior notice requested). <i>Learn on Demand – ‘Skillable’</i>	<a href="https://alh.learnondemand.net/">https://alh.learnondemand.net/</a>	
<b>Miro</b>	Miro is a collaborative digital whiteboard that QA uses to support a total learning experience during your apprenticeship. In Module 2, you will need access to and interact with a whiteboard for which the instructor will share a URL.	<a href="https://miro.com/">https://miro.com/</a>	
<p><b>This apprenticeship programme will utilise the following tools and technology:</b></p> <ol style="list-style-type: none"><li><b>1. Power BI Desktop</b></li><li><b>2. Python + Jupyter Notebook</b></li><li><b>3. Microsoft SQL Server 2019 (Express Edition)</b></li><li><b>4. MS SQL Server Management Studio</b></li><li><b>5. SSIS</b></li><li><b>6. R</b></li><li><b>7. R Studio</b></li><li><b>8. Microsoft Excel</b></li><li><b>9. Tableau Public</b></li></ol>			





## 10. Adobe acrobat reader

Access to these tools and technologies will be given via QA's own Virtual Machines (VMs), however, it might be beneficial for you to download free versions of these tools and technologies to your own machines so that you can practice using them outside of your scheduled Practise events.

If for any reason, you are unable to access QA's Virtual Machines, please download, install, and configure the below software applications.

The links below are to download, install and configure software applications.

Using a laptop/pc build provided by your organisation:

1. Select each link in the table below or enter them into your web browser address bar to review the application.
2. Do you already have this software installed, or are you able to download, install and configure the software?
3. If no, please raise this with your internal IT team.

Platform	Platform purpose	URL(s)	Successful?
SQL Server	Microsoft SQL Server is a relational database management system for storing and retrieving data as requested by client applications (CLI). You can use the following unlicensed versions (SQL Server 2022	<a href="https://www.microsoft.com/en-us/sql-server/sql-server-downloads">https://www.microsoft.com/en-us/sql-server/sql-server-downloads</a>	



	Express or SQL Server 2022 Developer edition).		
<b>SQL Server Management Studio</b>	Microsoft SQL Server Management Studio is the CLI for viewing, querying, and editing data stored in SQL instances virtual or local using SQL statements.	<a href="https://learn.microsoft.com/ssms">https://learn.microsoft.com/ssms</a>	
<b>Anaconda</b>	Anaconda is a package installation which includes Jupyter Notebook and Python. These tools are used to code mathematical and statistical models, and process and visualise data via an in-memory data project.  Minimum version Anaconda 2022 / Python 3.9.	<a href="https://www.anaconda.com/products/distribution">https://www.anaconda.com/products/distribution</a>	
<b>MS Excel</b>	You can utilise MS Excel & Power Query to open, review and manipulate data sets during the live and digital activities of this apprenticeship.  Minimum version Excel 2010  Recommended version Excel 2016 +	<a href="https://www.microsoft.com/microsoft-365/excel">https://www.microsoft.com/microsoft-365/excel</a>	



<b>PowerBI</b>	<p>Power BI is an interactive data visualisation software product developed by Microsoft. The desktop app can be downloaded for free from the Microsoft store.</p> <p>Minimum version: Latest, PowerBI is updated monthly.</p>	<a href="https://powerbi.microsoft.com/downloads">https://powerbi.microsoft.com/downloads</a>	
<b>R</b>	<p>R is a programming language for statistical computing and graphics.</p> <p>Recommended version 2022.07.2</p>	<a href="https://cran.r-project.org/src/base/R-4/">https://cran.r-project.org/src/base/R-4/</a>	
<b>RStudio</b>	<p>RStudio is an integrated development environment for R, a programming language for statistical computing and graphics.</p> <p><b>Please note:</b> R must be installed before installing RStudio.</p> <p>Recommended version 2022.07.2</p>	<a href="https://posit.co/downloads/">https://posit.co/downloads/</a>	
<b>Visual Studio and SSIS</b>	<p>Visual Studio is an integrated development environment (IDE) from Microsoft. It is used to develop computer programs</p>	<a href="https://visualstudio.microsoft.com/downloads/">https://visualstudio.microsoft.com/downloads/</a> select Community version <a href="https://learn.microsoft.com/en-us/sql/integration-services/install-windows/install-integration-services?view=sql-server-ver16">https://learn.microsoft.com/en-us/sql/integration-services/install-windows/install-integration-services?view=sql-server-ver16</a>	



	<p>including websites, web apps, web services and mobile apps.</p> <p>SQL Server Integration Services (SSIS) is a platform for building enterprise-level data integration and data transformations solutions.</p> <p>Minimum version 2017</p> <p>Latest version 2022</p>		
<b>Jupyter</b>	<p>JupyterLab is the latest web-based interactive development environment for notebooks, code, and data. Its flexible interface allows users to configure and arrange workflows in data science, scientific computing, computational journalism, and machine learning. A modular design invites extensions to expand and enrich functionality.</p>	<p><a href="https://jupyter.org/">https://jupyter.org/</a></p>	
<b>Tableau Public</b>	<p>Tableau Public is a free platform to explore, create, and publicly share data visualizations (or vizzes, as we affectionately call them) online. Anyone can create vizzes using our in-platform web authoring or Tableau Desktop Public Edition for free. Those with Tableau Desktop Professional</p>	<p><a href="https://public.tableau.com/app/discover">https://public.tableau.com/app/discover</a></p>	



	Edition can also publish to Tableau Public for free.		
<b>Adobe Acrobat Reader</b>	Adobe Acrobat Reader software is the free, trusted global standard for viewing, printing, signing, sharing and annotating PDFs.	<a href="https://auth.services.adobe.com/en_US/deeplink.html#/deeplink">https://auth.services.adobe.com/en_US/deeplink.html#/deeplink</a>	

#### 4. Websites

Category		URL(s)
<b>Safeguarding</b>	<a href="https://www.bbc.co.uk">https://www.bbc.co.uk</a>	<a href="https://educateagainsthate.com">https://educateagainsthate.com</a>
	<a href="https://www.clientsuk.appitiere.com">https://www.clientsuk.appitiere.com</a>	<a href="https://www.universitiesuk.ac.uk/topics/equality-diversity-and-inclusion/safe-and-inclusive-campuses">https://www.universitiesuk.ac.uk/topics/equality-diversity-and-inclusion/safe-and-inclusive-campuses</a>
	<a href="https://podcasts.apple.com">https://podcasts.apple.com</a>	<a href="https://www.crosstheline.co.uk">https://www.crosstheline.co.uk</a>
	<a href="https://open.spotify.com">https://open.spotify.com</a>	<a href="https://act.campaign.gov.uk">https://act.campaign.gov.uk</a>
	<a href="https://www.citizensadvice.org.uk">https://www.citizensadvice.org.uk</a>	<a href="https://homeofficemedia.blog.gov.uk">https://homeofficemedia.blog.gov.uk</a>
	<a href="https://get.nusextra.co.uk">https://get.nusextra.co.uk</a>	<a href="https://www.remploy.co.uk">https://www.remploy.co.uk</a>
	<a href="https://www.childrenssociety.org.uk">https://www.childrenssociety.org.uk</a>	<a href="https://youngminds.org.uk">https://youngminds.org.uk</a>
	<a href="https://www.nationaldebtline.org">https://www.nationaldebtline.org</a>	<a href="https://www.childline.org.uk">https://www.childline.org.uk</a>
	<a href="https://www.moneyadviceservice.org.uk">https://www.moneyadviceservice.org.uk</a>	<a href="https://www.themix.org.uk">https://www.themix.org.uk</a>
	<a href="https://www.moneysavingexpert.com">https://www.moneysavingexpert.com</a>	<a href="https://www.samaritans.org">https://www.samaritans.org</a>
	<a href="https://www.gov.uk">https://www.gov.uk</a>	<a href="https://www.refuge.org.uk">https://www.refuge.org.uk</a>
	<a href="https://www.victimsupport.org.uk">https://www.victimsupport.org.uk</a>	



	<a href="https://www.mind.org.uk">https://www.mind.org.uk</a>	
General (likely sites)	<a href="https://www.youtube.com">https://www.youtube.com</a>	<a href="https://skillsengland.education.gov.uk/">https://skillsengland.education.gov.uk/</a>

## 5. Alternative file sharing

Category	URL(s)	
Sharing files such as data sets, reference material, during your apprenticeship	<p>The following methods are alternative ways that QA instructors will share course files with you:</p> <ul style="list-style-type: none"><li>• Option 1: You can receive files via Webex File Transfer.</li><li>• Option 2: You can access Dropbox via dropbox.com.</li><li>• Option 3: You can access Google Drive via drive.google.com.</li><li>• Option 4: You can access OneDrive via onedrive.live.com.</li><li>• Option 5: You can receive zip files via email.</li></ul> <p>If you utilise a QA provided virtual machine, an instructor can share files directly to you.</p>	<p>If Webex file share is disabled, you can receive files via any of the following:</p> <p><a href="https://www.dropbox.com/">https://www.dropbox.com/</a></p> <p><a href="https://drive.google.com">https://drive.google.com</a></p> <p><a href="https://onedrive.live.com">https://onedrive.live.com</a></p>

