

No Coding Language Required				
Category	Sub-category	Tool	Link	Further Details
Initial Assessment	Data Maturity Assessment	Data Orchard Data Maturity Assessment Tool	dataorchard.org.uk/data-maturity-assessment-tool	A tool to help you assess where an organisation is on the data maturity journey, benchmark against others in the sector, and identify areas for improvement.
Data Collection	Business Applications	Apache OFBiz	ofbiz.apache.org	Including CRM & ERP solutions, Apache OFBiz can be used across any industry. A common architecture allows developers to easily extend or enhance it to create custom features.
Data Collection	Business Applications	Hubspot	hubspot.com/products/crm	CRM, sales, and services tools.
Data Collection	Database	Cassandra	cassandra.apache.org	Manage massive amounts of data, fast.
Data Collection	Database	Neo4J	neo4j.com	Native graph database - highly scalable, purpose-built to leverage not only data but also its relationships.
Data Collection	Database	PostGis	postgis.net	Spatial extension to PostGres
Data Collection	Database	PostgreSQL	postgresql.org/download	Advanced relational database
Data Collection	Database	SQLite	sqlite.org	SQL database engine
Data Analysis	Data Cleansing	Open Refine	openrefine.org	Clean and transform messy data.
Data Analysis	Optimisation	CMPL	projects.coin-or.org/Cmpl	System for mathematical programming and optimisation of linear optimisation problems.
Data Analysis	Optimisation	GLPK	gnu.org/software/glpk	For solving large-scale linear programming (LP), mixed integer programming (MIP), and other related problems.
Data Analysis	Optimisation	OpenSolver	opensolver.org	Linear, integer and non-linear optimizer add-in for Microsoft Excel.
Data Analysis	Optimisation	Watchmaker Framework	watchmaker.uncommons.org	Evolutionary/genetic algorithms
Data Analysis	Simulation	Insight Maker	insightmaker.com	Start with a conceptual map and then convert it into a complete simulation model
Data Analysis	Simulation	NetLogo	ccl.northwestern.edu/netlogo	Multi-agent programmable modeling environment
Data Analysis	Spreadsheet analysis	Google Sheets	docs.google.com/spreadsheets	Google alternative to Excel
Data Analysis	Spreadsheet analysis	LibreOffice Calc	libreoffice.org	Free version of Excel
Data Analysis	Statistical analysis	GATE	gate.ac.uk	Text processing
Data Analysis	Statistical analysis	Gretl	gretl.sourceforge.net	Econometrics / Time-Series Analysis written in the C programming language.
Data Analysis	Statistical analysis	PSPPP	gnu.org/software/pspp	Can perform descriptive statistics, T-tests, anova, linear and logistic regression, measures of association, cluster analysis, reliability and factor analysis, non-parametric tests and more. Advanced graphics.
Data Analysis	Statistical analysis	Samiam	reasoning.cs.ucla.edu/samiam	Sensitivity Analysis, Modeling, Inference, and more
Data Analysis	Supply chain management	Bath University Solvers	people.bath.ac.uk/ge277/solvers	Bin packing, Centre of Gravity, Container loading, and Vehicle Routing Excel Solvers
Data Analysis	Supply chain management	Open Door Logistics Studio	opendoorlogistics.com	Open Door Logistics Studio is an easy-to-use standalone open source application for performing analysis of your customer locations, sales territory design and mapping, and vehicle fleet routing & scheduling – all using an Excel spreadsheet.
Data Analysis	Supply chain management	OpenBoxes	openboxes.com/about	Supply chain management system designed for resource-scarce settings, but has inventory management capability.
Data Analysis	Geospatial / Mapping software	Doogal	doogal.co.uk	Web apps to transform UK postcodes into locational or census geographic areas
Data Analysis	Geospatial / Mapping software	GeoConvert	geoconvert.mimas.ac.uk	Convert postcodes into census geographies
Data Analysis	Geospatial / Mapping software	ChartsBin	chartsbin.com/about/apply	Create interactive maps online. No installation required. No coding needed.
Data Analysis	Geospatial / Mapping software	GDAL	gdal.org	Open source translator library for raster and vector geospatial data formats
Data Analysis	Geospatial / Mapping software	Google My Maps	google.com/earth/outreach/learn/visualize-your-data-on-a-custom-map-using-google-my-maps	Import locational data to plot points on a map
Data Analysis	Geospatial / Mapping software	GRASS	grass.osgeo.org	Advanced geospatial technologies
Data Analysis	Geospatial / Mapping software	QGIS	qgis.org/en/site	A Free and Open Source Geographic Information System
Data Analysis	Linear Algebra	GNU Octave	gnu.org/software/octave	Mathematics-oriented syntax with built-in 2D/3D plotting and visualization tools. Solve systems of equations with linear algebra operations on vectors and matrices.
Data Visualisation	Infographic	Canva	canva.com	Infographic design - free plan
Data Visualisation	Mind mapping	Freemind	freemind.sourceforge.net/wiki/index.php/Main_Page	Mind-mapping software written in Java.
Data Visualisation	Graphs and Charts	Chartbuilder	quartz.github.io/Chartbuilder	Static charts only but simply a matter of cutting and pasting data into the tool
Data Visualisation	Graphs and Charts	Datawrapper	datawrapper.de	No code or design skills required to create beautiful charts, maps & tables.
Data Visualisation	Graphs and Charts	Gephi	gephi.org	Visualisation and exploration for all kinds of graphs and networks
Data Visualisation	Graphs and Charts	Google Data Studio	datastudio.google.com	Interactive dashboards and beautiful reports that inspire smarter business decisions.
Data Visualisation	Graphs and Charts	Orange	orange.biolab.si	Open source machine learning and data visualization.
Data Visualisation	Graphs and Charts	RAWGraphs	rawgraphs.io	Web app built with the goal of making the data visualisation easy for everyone
Data Visualisation	Graphs and Charts	Tableau Public	public.tableau.com/s	Dashboard app. Note: everything you create will be publicly available on the web via Tableau's visualization gallery.
Data Visualisation	Graphs and Charts	Visualise Free	visualizefree.com	Dashboard app. Simply upload your data and drag-and-drop to create visualization dashboards with built-in interactivity.
Data Visualisation	Mapping	Exhibit	simple-widgets.org/exhibit	Exhibit lets you easily create web pages with advanced text search and filtering functionalities, with interactive maps, timelines, and other visualizations
Data Visualisation	Mapping	AutoGeoMapper	datakind-uk.github.io/autogeomapper/	Match your data against existing UK ward or local authority boundaries and create an easy-to-read shaded map.
Data Visualisation	Process Mapping	ARIS Express	ariscommunity.com/aris-express	Lightweight business process modelling tool.
Data Visualisation	Process Mapping	Bizagi Modeler	bizagi.com/platform/modeler	Intuitive and powerful business process mapping software.
Data Visualisation	Process Mapping	yWorks	yworks.com/products/yed	Generate high-quality diagrams manually or import external data for analysis.

Coding Language Required

Code Environments/Notebooks

Category	Sub-category	Tool	Link	Further Details
Data Analysis	Programming environment	Anaconda	anaconda.com/products/individual	The toolkit that equips you to work with thousands of open-source packages and libraries.
Data Analysis	Code sharing	Jupyter	jupyter.org	Web application that allows you to create and share documents that contain live code, equations, visualizations and narrative text.
Data Analysis	Code sharing	Colaboratory	colab.research.google.com	Write and execute Python in your browser
Data Visualisation	Data visualisation	Apache Zeppelin	zeppelin.apache.org	Web-based notebook that enables data-driven, interactive data analytics and collaborative documents with SQL, Scala and more.

Python

Category	Sub-category	Tool	Link	Further Details
Data Analysis	Optimisation	PULP	coin-or.org/PuLP	Use to describe optimisation problems as mathematical models.
Data Analysis	Optimisation	Pyomo	pyomo.org	Python-based, optimization modeling language with a diverse set of optimization capabilities.
Data Analysis	Simulation	SymPy	sympy.readthedocs.org/en/latest	Discrete-event simulation framework based on standard Python
Data Analysis	Statistical analysis	Pandas	pandas.pydata.org	Built on top of the Python programming language, pandas is a flexible and easy to use data analysis and manipulation tool.
Data Analysis	Statistical analysis	SciPy	scipy.org	Library consisting of specific set of fundamental scientific and numerical tool for Python that data scientists use to build their own tools and programs.
Data Analysis	Programming language	PyPy	pypy.org	PyPy is a fast, compliant alternative implementation of the Python language
Data Visualisation	Data visualisation	Bokeh	bokeh.pydata.org/en/latest	Python interactive visualization library
Data Visualisation	Data visualisation	Dash by Plotly	dash.plotly.com	Python framework for building web applications
Data Visualisation	Data visualisation	Matplotlib	matplotlib.org	Python data visualisation tool, focusing primarily on 2d plots
Data Visualisation	Data visualisation	Panel	panel.holoviz.org	Python library for creating custom interactive web apps and dashboards
Data Visualisation	Data visualisation	Plotly	plot.ly/python	Browser-based python graphing library for interactive, publication-quality graphs.

R

Category	Sub-category	Tool	Link	Further Details
Data Analysis	Statistical analysis	Rstudio Desktop/Server	rstudio.com/products/rstudio/download	RStudio makes R easier to use. It includes a code editor, debugging & visualization tools.

Ruby

Most used for building web applications. However, it is a general-purpose language similar to Python, so it has many other applications like data analysis, prototyping, and proof of concepts.

JavaScript

Category	Sub-category	Tool	Link	Further Details
Data Visualisation	Data visualisation	D3	d3js.org	JavaScript library for manipulating documents based on data
Data Visualisation	Data visualisation	Dygraphs	dygraphs.com	JavaScript charting library
Data Visualisation	Data visualisation	Interactive Data Visualizations for the Web	philogb.github.io/it	Interactive Data Visualizations for the Web
Data Visualisation	Interactive mapping	Leaflet	leafletjs.com	JavaScript library for mobile-friendly interactive maps