Glossary: Technologies of Watson

IBM Watson: IBM's portfolio of cloud native, business-ready tools, applications and solutions, designed to reduce the costs and hurdles of AI adoption while optimizing outcomes and responsible use of AI.

Data: Information: Units of information, collected through observation.

Quantitative Data: Data involving numeric variables representative of some kind of measurement. Quantitative data can be:

- **continuous**, meaning it can take on any value in a given interval (any number between 0 to 10, for example)
- **discrete**, meaning it can take on only specific values (2, 4, 6, and 8, for example)

Categorical Data: Captured in the form of certain categories or labels that reflect the qualitative aspects of data. Categorical data can be further divided:

- **nominal,** meaning its values represent categories with no intrinsic ranking (for example, the department of the company in which an employee works). Examples of nominal variables include region, postal code, and religious affiliation
- **ordinal,** when its values represent categories with some intrinsic ranking (for example, levels of service satisfaction from highly dissatisfied to highly satisfied)

Structured Data: Data that exists in a highly organized format. Think about tables, spreadsheets, relational databases and so forth.

Unstructured Data: Data that lacks predefined structure and may come in many forms. Think about written documents, photographs and videos, audio files, or webpages that contain mixes of all of these formats.

Artificial Intelligence: The design and building of intelligent agents (computer systems) that take information from an environment (data) and use it to predict, classify, and automate processes and decisions in that environment.

Machine Learning: The study of computer algorithms that improve automatically through experience and by the use of data

Deep Learning: The subfield of Machine Learning focusing on building artificial neural networks to train systems to accomplish complex tasks

Natural Language Processing: The branch of data science and AI concerned with giving computers the ability to understand human-written text and spoken words—natural language—in much the same way human beings can.

Cloud: On-demand access, via the internet, to computing resources—applications, servers, data storage, development tools, networking capabilities, and more—hosted at a remote data center.

Hybrid Cloud: Combines and unifies public cloud, private cloud and on-premises infrastructure to create a single, flexible, cost-optimal IT infrastructure.

Infrastructure as a service (IaaS): A vendor provides clients pay-as-you-go access to storage, networking, servers, and other computing resources in the cloud.

Platform as a service (PaaS): A service provider offers access to a cloud-based environment in which users can build and deliver applications. The provider supplies underlying infrastructure.

Software as a service (SaaS): A service provider delivers software and applications through the internet. Users subscribe to the software and access it via the web or vendor APIs.