DAILY ASSESSMENT FORMAT

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| **Date:** | **15/07/2020** | **Name:** | **Namratha S Hipparagi** |
| **Course:** | **Coursera** | **USN:** | **4AL16EC040** |
| **Topic:** | **Mathematics of machine learning-Linear algebra** | **Semester & Section:** | **8 A** |
| **Github Repository:** | **namrathahipparagi\_1** |  |  |

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| **FORENOON SESSION DETAILS** |
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| **Report**  Numerical Linear Algebra The application of linear algebra in computers is often called numerical linear algebra. “numerical” linear algebra is really applied linear algebra. Linear Algebra and Statistics 4 Efficient implementations of vector and matrix operations were originally implemented in the FORTRAN programming language in the 1970s and 1980s and a lot of code, or code ported from those implementations, underlies much of the linear algebra performed using modern programming languages, such as Python. Three popular open source numerical linear algebra libraries that implement these functions are: Linear Algebra Package, or LAPACK.  Page ix, Numerical Linear Algebra, 1997. It is more than just the implementation of linear algebra operations in code libraries; it also includes the careful handling of the problems of applied mathematics, such as working with the limited floating point precision of digital computers. Computers are good at performing linear algebra calculations, and much of the dependence on Graphical Processing Units (GPUs) by modern machine learning methods such as deep learning is because of their ability to compute linear algebra operations fast.  Linear Algebra and Statistics Linear algebra is a valuable tool in other branches of mathematics, especially statistics. Usually students studying statistics are expected to have seen at least one semester of linear algebra (or applied algebra) at the undergraduate level. Some clear fingerprints of linear algebra on statistics and statistical methods include:  Use of vector and matrix notation, especially with multivariate statistics.  Solutions to least squares and weighted least squares, such as for linear regression.  Estimates of mean and variance of data matrices.  The covariance matrix that plays a key role in multinomial Gaussian distributions.  Principal component analysis for data reduction that draws many of these elements together. As you can see, modern statistics and data analysis, at least as far as the interests of a machine learning practitioner are concerned, depend on the understanding and tools of linear algebra. 1.5. Applications of  Another interesting application of linear algebra is that it is the type of mathematics used by Albert Einstein in parts of his theory of relativity. Specifically tensors and tensor calculus. He also introduced a new type of linear algebra notation to physics called Einstein notation, or the Einstein summation convention. |

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| **Date:** | **15/7/2020** | **Name:** | **Namratha S Hipparagi** | |
| **Course:** | **Salesforce** | **USN:** | **4al16ec040** | |
| **Topic:** | **Salesforce platform basics** | **Semester & Section:** | **8 A** | |
| **AFTERNOON SESSION DETAILS** | | | |
| **Report**  **Learning Objectives**  • Define the Salesforce platform.  • Describe the DreamHouse scenario.  • Create a Trailhead Playground.  • Explain the difference between declarative and programmatic development.  **A Quick Introduction to Salesforce**  It stores your customer data, gives you processes to nurture prospective customers, and provides ways to collaborate with people you work with. And it does all those things. But saying that Salesforce is “just a CRM” is like saying a house is just a kitchen. There’s a lot more to it than that. Salesforce comes with a lot of standard functionality, or out-of-the-box products and features that you can use to run your business. Here are some common things businesses want to do with Salesforce and the features we give you that support those activities.  **Market to your audience Marketing Cloud to manage your customer journeys**  Depending on what your company purchases, you can get these features and more without lifting a finger. But you can almost think of these features as a model house that a real estate agent shows off. You could certainly live there, but it wouldn’t be your home. It wouldn’t have your art on the wall or that unusual coat rack your Aunt Tilda gave you as a housewarming gift. That’s where the Salesforce platform comes in. With the platform, you can customize and build whatever it is that makes your company unique. And when you have a business application that’s unique to you, everyone is more successful.  **Stories of Salesforce**   * Cloud Kicks—This custom sneaker company is making waves in the footwear industry. They use Salesforce to manage sales and help streamline their complicated order creation and fulfillment process. * Ursa Major Solar—On the cutting edge of renewable energy, Ursa Major Solar needs business software that doesn’t shy away from groundbreaking technology. They use Salesforce to manage sales and customer service nationwide. * Get Cloudy Consulting—As one of the best cloud consulting firms in the business, Get Cloudy knows CRM. They use Salesforce to manage existing and potential clients, and they’re always looking for new ways to innovate with Salesforce services. * DreamHouse Realty—Known for their fresh approach to real estate, DreamHouse uses Salesforce to connect their employees and improve the efficiency of home sales.   **Get to Know Our Terms**  Perhaps you noticed a strange word in that last paragraph: objects. Object is one of many important terms you’ll learn as you get to know Salesforce. First, it’s important to understand what a database is in the context of Salesforce. When we talk about the database, think of a giant spreadsheet. When you put information into Salesforce, it gets stored in the database so you can access it again later. It’s stored in a very specific way so you’re always accessing the information you need.  Let’s take a look at a page from the DreamHouse app to define some of its important elements and how they relate to the database.   * An app in Salesforce is a set of objects, fields, and other functionality that supports a business process. You can see which app you’re using and switch between apps using the App Launcher ( ). * Objects are tables in the Salesforce database that store a particular kind of information. There are standard objects like Accounts and Contacts and custom objects like the Property object you see in the graphic. * Records are rows in object database tables. Records are the actual data associated with an object. Here, the 211 Charles Street property is a record. * Fields are columns in object database tables. Both standard and custom objects have fields. On our Property object, we have fields like Address and Price. | | | |