**Week 10**

**Name: Harikrishnan ps**

**Mobile: 9567578391**

| **Personal Development Workouts** |
| --- |
| 1. Watch the movie “Coach Carter” |
| *Write a short description about this task*  *In 1999, Ken Carter (Samuel L. Jackson) returns to his old high school in Richmond, California, to get the basketball team into shape. With tough rules and academic discipline, he succeeds in setting the players on a winning streak. But when their grades start to suffer, Carter locks them out of the gym and shuts down their championship season. When he is criticized by the players and their parents, he sticks to his guns, determined that they excel in class as well as on the court*  *Link to the folder containing your audio summary* |

| **Technical Workouts** |
| --- |
| 1. Refresh python basics, data structures etc. 2. Learn jupyter notebook, virtual environment usages. 3. Learn pandas, numpy and scikit learn usages. 4. Learn plotting using matplotlib, seaborn. 5. Create a venv and do all the concepts mentioned above using a jupyter notebook. 6. Choose any 3 data sets and try out the concepts you studied. 7. Prepare a reference document for the above concepts.   Scikit Learn   * Implement Linear regression * Implement a sample classification * Implement a clustering algorithm * Evaluation metrics for each and with code and plots |
| *Write a short description about this task*  *NumPy: A fundamental package for numerical computations in Python. It provides support for large, multi-dimensional arrays and matrices, as well as mathematical functions to operate on these arrays efficiently.* |
| *Write a short description about this task*  *Pandas: A powerful library for data manipulation and analysis. It offers data structures like DataFrame and Series, making it easier to handle and analyze tabular data.* |
| *Write a short description about this task*  *Seaborn: A data visualization library built on top of Matplotlib. It provides a higher-level interface for creating informative and attractive statistical graphics.* |
| *Write a short description about this task*  *Scikit-learn: A versatile machine learning library that provides simple and efficient tools for data mining and data analysis. It includes various algorithms for classification, regression, clustering, dimensionality reduction, and more.* |
| *Write a short description about this task*  *Matplotlib: A widely used 2D plotting library for creating static, animated, and interactive visualizations in Python* |
| *Write a short description about this task*  *Scikit-learn: A versatile machine learning library that provides simple and efficient tools for data mining and data analysis. It includes various algorithms for classification, regression, clustering, dimensionality reduction, and more.*  *Seaborn: A data visualization library built on top of Matplotlib. It provides a higher-level interface for creating informative and attractive statistical graphics.* |
| *Write a short description about this task*  *NumPy: A fundamental package for numerical computations in Python. It provides support for large, multi-dimensional arrays and matrices, as well as mathematical functions to operate on these arrays efficiently.*  *Pandas: A powerful library for data manipulation and analysis. It offers data structures like DataFrame and Series, making it easier to handle and analyze tabular data.*  *Scikit-learn: A versatile machine learning library that provides simple and efficient tools for data mining and data analysis. It includes various algorithms for classification, regression, clustering, dimensionality reduction, and more.*  *Seaborn: A data visualization library built on top of Matplotlib. It provides a higher-level interface for creating informative and attractive statistical graphics.*  *Matplotlib: A widely used 2D plotting library for creating static, animated, and interactive visualizations in Python.*  *Link to the case study*  [*https://www.javatpoint.com/*](https://www.javatpoint.com/) |
| *Link to the document*  [*https://drive.google.com/file/d/1h1Bhf\_m0DrAI2r-w2NNtwfa3HPnq5fKL/view?usp=drive\_link*](https://drive.google.com/file/d/1h1Bhf_m0DrAI2r-w2NNtwfa3HPnq5fKL/view?usp=drive_link)  [*https://drive.google.com/file/d/1OPoU1EKZ-iPDzEzi7WRD3FfyW-7kfviz/view?usp=drive\_link*](https://drive.google.com/file/d/1OPoU1EKZ-iPDzEzi7WRD3FfyW-7kfviz/view?usp=drive_link)  [*https://drive.google.com/file/d/1AdkLywdvGP3gL638Nj5xFEejEySv-1RU/view?usp=drive\_link*](https://drive.google.com/file/d/1AdkLywdvGP3gL638Nj5xFEejEySv-1RU/view?usp=drive_link)  [*https://drive.google.com/file/d/1RT693zlfiWFeEAFHyx\_bP7yqLG-6tg\_z/view?usp=drive\_link*](https://drive.google.com/file/d/1RT693zlfiWFeEAFHyx_bP7yqLG-6tg_z/view?usp=drive_link)  [*https://drive.google.com/file/d/1APzgtR2MOMWcyIwQ2P3UrSYWX2xhR4f5/view?usp=drive\_link*](https://drive.google.com/file/d/1APzgtR2MOMWcyIwQ2P3UrSYWX2xhR4f5/view?usp=drive_link)  [*https://drive.google.com/file/d/1VHnMiHWjOLt\_M1gkLVnOih2FDxBeniNi/view?usp=drive\_link*](https://drive.google.com/file/d/1VHnMiHWjOLt_M1gkLVnOih2FDxBeniNi/view?usp=drive_link)  [*https://drive.google.com/file/d/14qKA3IsfYiMN\_4I4wuZtFMv8EaIS49RZ/view?usp=drive\_link*](https://drive.google.com/file/d/14qKA3IsfYiMN_4I4wuZtFMv8EaIS49RZ/view?usp=drive_link) |

| **Miscellaneous Workouts** |
| --- |
| 1. Practice typing for at least one hour each day. Finish as many chapters as possible as you can. Don’t spend more than an hour each day. 2. Prepare a topic for the tech seminar. Record and upload it on youtube as an unlisted video. 3. Conduct a Feedback session by the end of this week. 4. Prepare your progress video for the last week. Record and upload it on youtube as an unlisted video. |
| *Write a short description about this task*  *"Improve your typing skills with our engaging and interactive typing practice program! Whether you're a beginner looking to learn touch typing or an experienced typist aiming to boost your speed and accuracy, our platform has you covered. With a wide range of fun exercises and challenging lessons, you'll master the keyboard in no time. Track your progress, receive personalized feedback, and watch your typing proficiency soar to new heights. Start typing today and unlock the potential to be a faster and more efficient typist*  *Link to screenshot image* |
| *Write a short description about this task*  *"The future of technology promises an awe-inspiring era of innovation and transformation. Advancements in artificial intelligence, quantum computing, biotechnology, and more are set to revolutionize how we live, work, and interact with the world. Imagine smart cities optimizing energy usage, self-driving vehicles navigating seamlessly through traffic, and personalized healthcare solutions tailored to individual needs. As technology becomes increasingly interconnected, we can expect a new level of convenience and efficiency in our daily lives. However, with these advancements come important ethical and societal considerations that we must address to ensure a future where technology serves as a force for good. Embracing this future with a balance of innovation, responsibility, and inclusivity holds the potential to shape a brighter, more sustainable, and harmonious world for generations to come*  *Link to your seminar video*  [*https://youtu.be/LfHKu0FXqGQ*](https://youtu.be/LfHKu0FXqGQ) |
| *Link to the document containing notes for your feedback session* |
| *Write a short description about this task*  *Link to your progress video* |