Iteration #2

By Ashwin Satish and Joe Russell

1. **Project Kickoff**

- **What are the specific goals of this project?**
  To build a model to predict the outcome of NBA games using historical player & team data
- **How do we define the project scope clearly to avoid scope creep?**
  We are planning on restricting our data to the official data presented and given by a Basketball stats website. Hence, this would avoid scope creep in the long run as we do not plan to use other data sources.
- **What deliverables must be completed at different phases?**
  Stage 1 - Data Mining
  Stage 2 - Data Pre-processing
  Stage 3 - Analysis and EDA
  Stage 4 - Model building
  Stage 5 - Publish/Deploy
- **What are the major milestones, and what deadlines should we set?**
  Week 1 (Starting from 18th October) - Begin data mining
  Week 2 - Finish data mining and begin initial pre-processing
  Week 3 - Finish up with basic pre-processing and start model building
  Week 4 - Model building part 2
  Week 5 - Work on finalizing the model
  Week 6 - Fine tuning and output verification
  Week 7 - Work on deployment
  Week 8 - Deployment.
- **Do the team's capabilities align with these goals? Are there any gaps that need to be addressed early on?**
  Q1 - Yes
  Q2 - No
- **Do you have a dataset ready to use for the current project?**
  We are working on consolidating the data present online through data mining and pre-processing.

2. **Team Discussions**

- **What are the core skills each team member brings to the table?**
  Data Mining, Preprocessing and Machine Learning
- **How will each person's expertise contribute to specific tasks?**
  Both teammates are intermediate machine learners and are greatly determined to do well in the project.
- **What skills are missing that may cause delays or challenges?**
  Knowledge in deployment and the publishing process of the final model
- **What tools do we have experience with, and what do we need to learn?**
  Pandas, SciKit-Learn, NumPy, Seaborn, mySQL, Selenium (Scraping), BeautifulSoup4 (Scraping)
- **What programming languages and platforms should we select based on our project needs and team experience?**
  Python and MySQL

3. Skills & Tools Assessment

- **Are there external resources or team members with expertise in the areas where we lack skills?**
  External resources - Probably. Team members - No.
- **Which tools, frameworks, and libraries are most suitable for the project's scope?**
  Pandas, SciKit-Learn, NumPy, Seaborn, mySQL, Selenium (Scraping), BeautifulSoup4 (Scraping)
- **How can we ensure that each team member is comfortable with the tools selected?**
  We have discussed the tools before selecting them, hence we are comfortable with the tools.
- **Have specific tasks been assigned based on individual strengths, and are team members clear on their roles?**
  Both team members work on each and every task involved in the project alongside the deliverables.

4. Initial Setup

- **What development environment setup is necessary for this project?**
  Python and MySQL
- **Have we successfully configured version control (such as Git)? Does everyone have access to the repository?**
  Yes

- **Have we installed and configured all required software, libraries, and tools?**
  Yes
- **What testing can we run to ensure that the development environment is functioning correctly?**
  We will verify all frameworks and libraries are installed correctly and the database is tuned appropriately.
- **What troubleshooting steps should we take if the setup does not work as expected?**
  We will use Google to try and fix the problem.

5. Progress Review

- **What has been achieved so far? Have we completed the initial setup and repository configuration?**
  Found data sources, outlined the basic architecture of the model, starting with mining soon.
- **Have there been any issues or blockers, and how can we address them quickly?**
  Not yet.
- **Is each team member contributing as expected, and does everyone understand their role?**
  We're all on the same page and are carrying out our roles.
- **Are we on track with the timeline and milestones, or do we need to adjust them?**
  Yes, so far.
- **How does the progress align with the project's overall objectives?**
  We are on track so far but can make adjustments.

6. Plan Revision

- **Based on progress so far, do we need to adjust the project timeline or milestones?**
  No
- **Are any tasks delayed or requiring reassignment due to workload or skill gaps?**
  No tasks are getting delayed as of now.
- **How can we ensure that all members are clear on the revised plan and their next steps?**
  We are following the tight deadlines we mentioned previously.

- **What communication strategies can we implement to avoid future delays or misunderstandings?**
  We can utilize timely messages on Microsoft Teams.
- **How will we track progress going forward and maintain alignment with the revised plan?**
  We will work hard to maintain alignment and progress with the revised plan by reworking the schedule for the project.

7. Submission for This Iteration

- **What specific tasks need to be documented for this iteration's submission?**
  We will begin documenting our individual tasks and work in excel for the deadlines mentioned previously.
- **Have we detailed the challenges faced, the solutions implemented, and any adjustments to the plan?**
  As of now, there are no major challenges in the plan and there are no specific adjustments that we have to make or made for the plan. Hence, no we have not detailed the challenges faced.
- **If your data is available online, please provide a link to access it.**
  https://www.basketball-reference.com/
- **Is the PDF using the Overleaf template, and does it reflect the team's actual progress?**
  No, we are not using LaTeX for the document we are working on currently.
- **Has everyone tracked their progress using the Excel file, and are we submitting it along with the PDF?**
  No, we have not initiated that process yet. Will get to it shortly.
- **Does the submission meet all the project requirements, and is it ready for review by stakeholders?**
  Yes
- **Please provide a link to your GitHub repository with the updated files, including the PDF uploaded there as well.**
  https://github.com/NamikazeAsh/NBA-Predictor