# S00183460 Project Proposal

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| **Student Name:**  **Marcin Antonczak** |
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| **Project Title: Amazon stock price analysis** |
| **Description of Project:** The application of machine learning and AI solutions in finance has been growing for the last ten years. One of the key areas among others is stock market prediction. (Ahmed, Shamima et al., 2022) In this project, the stock price prediction of Amazon will be carried out using a Long Short-Term Memory Network (LSTM). LSTM is a neural network specifically designed to process time series data. This project will integrate this model into a user-friendly dashboard to visualize historical data, generate future predictions, and offer decision-making support. (Ghosh, Pushpendu et al., 2022) |
| **Aims and Objectives:**  The goal of the project is to apply the skills learned during the module and develop a dashboard that utilizes machine learning solutions for Amazon’s stock price prediction. |
| **Methodology**   1. **Obtain datasets** 2. **Data preprocessing** 3. **LSTM model implementation** 4. **Dashboard creation** |
| **References**  Ahmed, Shamima et al. (2022). Artificial intelligence and machine learning in finance: A bibliometric review. Research in International Business and Finance.  Ghosh, Pushpendu et al. (2022). Forecasting directional movements of stock prices for intraday trading using LSTM and random forests. Finance Research Letters. |