Queens College, CUNY, Department of Computer Science Computational Finance CSCI 365 / 765 Spring 2019

Instructor: Dr. Sateesh Mane © Sateesh R. Mane 2019

Project 1

4 Question 4: Crystal ball

- State the value of the Dow Jones Index at the close of trading on the NYSE on May 24, 2019.
- Explain how you arrive at your answer.
- Your response to this question will be kept on file, and will be compared to your subsequent answers to exam/quiz questions.
- Student answers to exam/quiz questions which claim to know the future values of random variables will incur a loss of grade.
- Students who decline to answer Question 4, and/or do not submit a satisfactory answer to Question 4, will have a grade cap of D placed on their course grade.

Crystal balls

- Curiously, 17 out of 73 students who submitted responses had crystal balls and were able to state the value of the Dow Jones Index at the close of trading on the NYSE on May 24, 2019, some to two decimal places, and one to five.
- Even more curiously, the answers were all different.
- Some balls were cloudy, and only yielded an approximate value or an interval of numbers.
- We shall see what happens at the close of trading on the NYSE on May 24, 2019.
- Some may pass, the rest will fail, or they may all fail.
 - 1. The value of the Dow Jones Index at the close of trading on the NYSE on May 24, 2019 will be = 25, 462.37353.
 - 2. Using historical dow jones industrial average data from 01-31-2009 till 02-08-2019, built an arima time series model and forecasted out till May 24, 2019, when my model forecasts the dow jones industrial average will be 25723.54 points.
 - 3. On May 24th, 2019, the Dow Jones Index value will be \$28,663.60.
 - 4. Dow Jones Index at the close of trading on the NYSE on May 24, 2019: \$25,850.00
 - 5. I predict for the Dow Jones Index to be \$28,000 at the close of trading on the NYSE on May 24, 2019.
 - 6. I guess that the value may be 26304.83.
 - 7. I expect it to be somewhere near 26,000, specifically 25,952.
 - 8. I think the value will be 26,000.
 - 9. The Dow Jones Index could be 24326.04.
 - 10. The value I predict for the Dow Jones Index will be \$29000 at the close of trading on the NYSE on May 24, 2019.
 - 11. My estimation for the value of the Dow Jones index at the close of trading on May 24th, 2019 is roughly 27,500.
 - 12. The value of the Dow jones Index at the close of trading on the NYSE on May 24,2019 may be 26,766.63.
 - 13. The value of the Dow Jones Index at the close of trading on the NYSE on May 24, 2019 approximately 25,500.
 - 14. Value of the Dow Jones Index at the close of trading on the NYSE on May 24, 2019 is approximately going to be 24,087.27.
 - 15. So, I guess it will be between 24000 and 25500 at May 24^{th} .
 - 16. However by taking the average of this range I predict that on May 24th, 2019 the index will close with a value of $25,000 \pm a$ margin of error of 500.
 - 17. The answer I got was \$26,104.45 so I estimate it would be around \pm by about \$3,000 which is about $\pm 12\%$.