Things to do

ENTITIES

1. PROMETHEUS
2. GRAFANA
3. SWING APPLICATION

STEPS

1. INSTALL PROMETHEUS
2. INSTALL GRAFANA
3. IDENTIFY METRICS
4. SCRAPE THOSE METRICS VIA JAVA APPLICATION
5. EXPOSE THESE METRICS TO THE SPECIFIED HTTP PORT
6. CONFIGURE PROMETHEUS .YML FILE TO LISTEN TO THE HTTP PORT FOR METRICS
7. CHECK EXPOSED METRICS ON LOCALHOST:9090 /METRICS– DEFAULT LSITENING PORT OF PROMETHEUS
8. CHECK IF THE TARGET IP I SUP OR NOT IN LOCALHOST/9090/TARGETS
9. ONCE THE TARGET IS UP, IT MEANS THE METRICS ARE GETTING SENT FROM THE JAVA APPLICATION TO PROMETHEUS SERVER
10. TEST AND DRY RUN WITH THE PASSED METRICS AND SEE IF GRAPHICAL REPRESENTATIONS ARE THERE FOR THE SAME
11. NOW GRAFANA!!
12. INSTALL GRAFANA
13. GO TO LOCALHOST 3000 TO SEE IF THE SERVER IS RUNNING OR NOT
14. USERNAME:ADMIN, PWD:ADMIN
15. NOW YOU NEED TO ADD DATA SOURCE
16. GRAFANA HAS ROOM FOR VARIOUS PREDEFINED DATABASE,ONE OF WHICH IS PROMTHEUS
17. IN ADD DATASOURCE SELECT PROMETHEUS, GIVE ADDRESS AS LOCALHOST 9090
18. NOW WHATEVER DATA WAS SENT TO PROMETHEUS WILL BE VISUALIZED IN GRAFANA
19. GRAFANA IS A POWERFUL VISUALIZATION TOOL WITH A POWERFUL QUERY LANGUAGE **PROMQL** WHICH ALLOWS US TO PLAY WITH OUR METRICS AND GIVE VIVID VISUALIZATIONS
20. ADD PANEL AND TEST A QUERY
21. CHOOSE FROM GUAGE, GRAPH, SINGLESTAT AND GIVE REPRESENTATIONS
22. BUILD YOUR DASHBOARD WITH MULTIPLE PANELS AND MULTIPLE REPRESENTATIONS
23. PLAY AROUND WITH THE REPRRESENTATIONS
24. GIVE A SCRAP TIME, SPECIFY THE TIME IN WHICH YOU WANT TO SEE VISUALIZATION
25. NOW SWINGSSSS
26. CREATE A SWING APPLICATION AND LINK IT TO THE EXISTING JAVA APPLICATION WHICH IS LINKED TO PROMETHEUS GRAFANA
27. USE MULTITHREADNG TO FREE THE MAIN THREAD.
28. DO THE NECESAAAARY SWING CONFIGURATIONS TO MATCH YOUR REQUIREMENTS
29. LINK IT TO JAVA APPLICATION
30. NOW ALERTTT
31. SETUP AN ALERT IN GRAFANA WHENEVER METRIC VALUE CROSSES PARTICULAR DESIGNATED BOUNDARIES
32. GO TO THE PANEL-EDIT AND ADD ALERT
33. DEFINE THE ALERT CRITERIA IN THE DASHBOARD
34. GO TO ALERT ON DASHBOARD
35. ADD NOTIFICATION CHANNEL
36. SPECIFY THE MODE OF COMMUNICATION-DEFAULT AS EMAIL
37. SPECIFY THE MAILS WHICH WILL RECEIVE ALERTS
38. SETUP A MAIL SERVER
39. DOWLOAD HMAILSERVER AND THUNDERBIRD
40. DO THE NECESSARY CONFIGURATION AND DEFINE THE HOST
41. GO TO GRAFANA CONFIG AND DEFINE THE SMTP HOST , USER AND PWD
42. SAVE IT AND RESTART GRAFANA SERVER
43. GO TO NOTIFICATION CHANNEL AND TEST THE CONNECTION
44. ONCE THE CONNECTION IS MADE ALERTS WILL BE SENT TO THE DEFINED MAIL IDS
45. NOW TRYING IN ON MULTIPLE MACHINESSSSSS
46. CREATE A EXECUTABLE JAR FILE OF THE JAVA APPLICATION
47. RUN IT ON THE VM
48. GO TO LOCAHOST:1235/METRICS TO SEE IF THE METRICS ARE BEING SENT OR NOT
49. IF FOUND THEN GO TO THE MAIN SYSTEM WHERE THE PROMETHEUS AND GRAFANA SERVERS ARE RUNNING
50. EDIT THE PROMETHEUS .YML FILE AND ADD THE IP ADDRESS OF THE VIRTUAL MACHINE TO THE TARGETS
51. RESTART THE PROMETHEUS SERVER
52. NOW IT WILL SCRAPE DATA FROM THE PARENT SYSTEM AS WELL AS THE VM CARRYING THAT SPECIFIC IP ADDRESS
53. VISUALIZATIONS WILL BE SHOWN IN THE GRAFANA DASHBOARD
54. NEXT STEP-HOW TO SEND METRICS ON THE GO
55. INTEGRATION WITH NEXUS