API Change and Fault Proneness: A Threat to the Success of Android happens

Summary

This paper looked at apps ratings' relationship to the use of problematic APIs and the result shows that lower rated apps have a high correlation with problematic APIs. The authors looked at around 7k free Android apps and analyzed it's API usage by looking at historical commits on fixing API's.

Things I would like to see discussed

- There seems to be a small egg and chicken problem here. Does problematic API causes lower rating apps or does lower rating apps use more problematic APIs. I'm not very familiar with the statistical methods so not sure if this is ruled out.
- The way they determine if an API is problematic is looking at commits. I'm wondering if this has some problems of identifying things.
- This paper looked at ratings as a metric. How could we perform analysis on platforms without such thing. Are there any other replacements of this, for example popularity?