**Existing System:**

Existing systems have mainly taken three approaches to improving user privacy in geo-social systems:

(a) introducinguncertainty or error into location data .

(b) relying on trusted servers or intermediaries to apply anonymization to user identities and private data.

(c) relying on heavy-weight cryptographic or private information retrieval (PIR) techniques.

The challenge, then, is to design mechanisms that efficiently protect user privacy without sacrificing the accuracy of the system, or making strong assumptions about the security or trust worthiness of the application servers. More specifically, we target geo-social applications, and assume that servers (and any intermediaries) can be compromised and, therefore, are untrusted.