**Use Case Diagram**

Register and Login,

Attackers,

Attackers, Upload File,

**Data Owner**

Login, View and Authorize Users,

View and Authorize Owners,

View Files, Verify data(Verifiability),

**Cloud Server**

View All Search Transactions

View and Delete Files , View All Transactions.

View Files,

View All File Transactions,

**Register and Login, My Profile,** **View Files,**

**User**

**Search Files,** **Search Ratio,**

**Top K Search,**

Authorize user

Req Search Control.

**PKG**

**Login,**

**View Files and Generate Key.**