Motivation:
1) Simulator can compare the security performance of different protocols
2) Ad hoc network can be established without help from a fixed infrastructure
3) Security is a critical issue since military work may be involved

Types of attacks:
1) Resource consumption attacks (waste bandwidth)
2) Routing disruption attacks (drop routing packets)

Simulator using C++:
- Object-oriented
- Easy to add more components or easy to change the scenario

Program Structure:

Evaluation of routes:
\[ Q(R_i) = \prod_{A \in R} P(A, S) * H(A, S) - \lambda * L_i \]
According to the information from PacketStat and Blacklist, we can determine which route is more secure.
\( \lambda \) = determine how important is the number of hops
**If the traffic is already heavy, shorter route preferred, we weigh \( \lambda \) more.

Future work:
1) Finish the implementation
2) Additional routing protocol classes