

# Design - NWEN 303 - Project 2

David Barnett (300313764)

## Key manager

### Requirements

- take initial key, key size and cipher text as arguments
- host on a random port
- Connections from a client
- allocate them key space to search
- report results
- Answer requests for work
- Receive results from a client
- Shutdown when the key is found
- print out if it found key & (given found) the key. Otherwise print failure
- track time taken and the key space exhausted

### Assumptions

- client will complete the work it is given

## Client Program

### Requirements

- take hostname, port number and chunk size as arguments
- chunk size is the number of keys it will request each time
- attempts to decrypt the cipher text
- report results of keys to Manager

### Assumptions

- will keep requesting keys until no more tasks available from Key Manager

## Communication between Manger & Client

### Start up

The initial communication is a connect from the client to the manager:

- The server will give the client the cipher text.

### Main loop

The main loop of trying keys

- The client will request for **chunksize** number of keys to attempt.
- The server will give equal to or less than the requested number of keys.
- The client completes the