Zeroconf

Database

Services	
PK PK	hostname (string: 20) service_type (string:15)
	protocol (string:5)
	interface (string:10)
	port (int)
	TXTDATA (string:20)
	TTL (int)
	advertised (bool)
	questioned (bool)

myServices	
PK PK	hostname (string: 20) service_type (string:15)
	protocol (string:5)
	interface (string:10)
	port (int)
	TXTDATA (string:20)
	TTL (int)
	advertised (bool)
	questioned (bool)

requestedServices	
PK	id (int)
	service_type (string:15)

DNSTable	
PK PK	hostname (string: 20) interface (string:10)
	ip (string:40)

Functions:

service[] getServices() :
service[] getMyServices(): both return an array of structs service (which contains the fields described on previous tables) from the corresponding table.

int addService(service): accepts a service and adds it to the table Services.

int removeService(hostname, service_type): accepts a service's hostname and service_type and removes it from the table Services

int removeServiceByHost(hostname): removes all services from the table Services corresponding to the specific hostname.

char getRequestedService()**: returns an array of strings containing the service_type records

int getServicesNum(): returns an integer equal to the number of records in myServices table
note: application layer should add a corresponding record in myServices table for each service the device offers

int addDnsRecord(hostname, interface, ip): adds a record in DNSTable

int removeDnsRecord(hostname, interface): removes a record from DNSTable

int updateDnsRecord(hostname, interface, ip): updates the ip of the record having hostname and interface given with the ip given