Zeroconf

<u>Database</u>

services	
PK	<u>hostname (string: 20)</u>
PK	<u>serviceType (string:15)</u>
	protocol (string:5)
	interface (string:10)
	port (int)
	TXTDATA (string:20)
	TTL (int)
	advertised (bool)
	questioned (bool)

myServices	
PK	<u>hostname (string: 20)</u>
PK	<u>serviceType (string:15)</u>
	protocol (string:5)
	interface (string:10)
	port (int)
	TXTDATA (string:20)
	TTL (int)
	advertised (bool)
	questioned (bool)

requestedServices	
PK	<u>id (int)</u>
	serviceType (string:15)

DNSTable	
PK	<u>hostname (string: 20)</u>
PK	<u>interface (string:10)</u>
	ip (string:40)

<u>Functions:</u>

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.

bool removeService(string hostname, string serviceType): 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(int &size): returns an array of strings of containing the service_type records.The argument returns the size of the array.

int getServicesNum(void): 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

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

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

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