BABEL protocol

4th year project of Epitech

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L'ECOLE DE L'INNOVATION ET DE
L'EXPERTISE INFORMATIQUE

op code	sens	op code	type	op code	description	op	param
1	server ->client	0	liste contact	0	send	100	nbrElement id/username/online ...
1	server ->client	1	call	0	demande confirmation pour un call	110	id portUdp ip name (id =émetteur)
1	server ->client	1	call	1	le call est accepté	111	id (id = recepteur)
1	server ->client	1	call	2	informe raccroche	112	
1	server ->client	2	relation	0	demande confirmation pour une relation	120	size username id
1	server ->client	3	authentification	0	reponse pour le register	130	bool
1	server ->client	3	authentification	1	reponse pour le login	131	bool
1	server ->client	3	authentification	2	coupe la connection	132	
2	client->server	1	call	0	demande un call	210	id portUdp (id = récepteur)
2	client->server	1	call	1	accept un call	211	id (id = émeteur)
2	client->server	1	call	2	a raccroché	212	id (id = émeteur)
2	client->server	2	relation	0	demande de relation	220	size username
2	client->server	2	relation	1	réponse de relation	221	id
2	client->server	2	relation	2	supprimer une relation	222	id
2	client->server	2	relation	3	demande liste relation	223	
2	client->server	3	authentification	0	demande de register	230	size username size password
2	client->server	3	authentification	1	demande de login	231	size username size password
2	client->server	3	authentification	2	déconnection	232	
5	error	5	server	0	error interne		

First column :

   is first number of the OPcode allows to know the direction between the client and the server

Third column :

   is second number of the OPcode allows to know the type of operation

Fifth column :

   is third number of the OPcode allows to know the more precise description

Seventh column :

   is the full OPcode

Last column :

   is the last column allows you to know the parameters to send with the OPcode

any bad protocol number will be ignored

Below is the structure which is filled according to the parameters requested by the opcode.

```c
typedef struct relation_s {
    int id;
    char username[SIZE_DEFAULT_NAME];
    bool online;
} relation_t;

typedef struct transfertData_s {
    int opcode;
    relation_t relation[SIZE_MAX_RELATION];
    char username[SIZE_DEFAULT_NAME];
    char password[SIZE_DEFAULT_PASS];
    char ip[SIZE_DEFAULT_IP];
    int id;
    int portUdp;
    bool rep;
} transfertData_t;
```

To send the information, the binary protocol is used. we write the structure in the file sent. To read the information sent, it's necessary to cast the file in the type of the structure.