**Overview**

**Class:**

**class CDataBase:**

**Method:**

bool insertRecord(int index);

bool delRecord(int index);

bool setItem(int recordIndex,int typeIndex,char \*value);

char\* getItem(int recordIndex,int typeIndex);

bool insertType(int index);

bool delType(int index);

bool setType(int index,char \*name,int maxlen);

TypeInfo \*getType(int index);

int findType(char \*name);//return a index,-1 represent no find.

int findItem(int typeIndex,char \*value);//return a index,-1 represent no find.

int getNumTypes();

int getNumRecords();

**class** **CDataBaseView:**

**Method:**

bool readFromFile(char \*filePath,const char \*tag=DEFAULT\_TAG);

bool saveAsFile(char \*filePath,const char \*tag=DEFAULT\_TAG);

void printAll();

//new added:

bool readFromEncryptedFile(char \*filePath, char \*key,int keysize, char \*tag=DEFAULT\_TAG);

bool saveAsEncryptedFile(char \*filePath, char \*key,int keysize, char \*tag=DEFAULT\_TAG);

//auxiliary methods:

void addType(char \*typeName,int valueLen=15);

void inputData();

//below method just to control which rows and cols to show

void setColMask(bool b);

void setRowMask(bool b);

bool \*getColMask();

bool \*getRowMask();

/\*general usage:

CDataBase db;

CDataBaseView dbv;

dbv.setDB(&db);

dbv.setColMask(true);

dbv.setRowMask(false);

int index=0;//determine which row to show

dbv.getRowMask()[index]=true;

dbv.print(); //show data based on above setting.

\*/

**class TypeInfo:**

**Method:**

bool setName(char \*tname);

char \*getName();

void setMaxLen(int a);

int getMaxLen();

**Some Function:**

bool isExistFile(char \*fileName);

void intToStr(int n,char \*buffer);

int getStr(istream & in,char \*str,int len,char delims='\n',char emit=' ');

char \*delBlank(char \*str);//删末尾的空格

char\* lowerCase(char \*src);//转化为小写

**Detailed Instruction**

CDataBase:

bool insertRecord(int index);

bool delRecord(int index);

bool setItem(int recordIndex,int typeIndex,char \*value);

char\* getItem(int recordIndex,int typeIndex);

bool insertType(int index);

bool delType(int index);

bool setType(int index,char \*name,int maxlen);

TypeInfo \*getType(int index);

int findType(char \*name);//return a index,-1 represent no find.

int findItem(int typeIndex,char \*value);//return a index,-1 represent no find.

int getNumTypes();

int getNumRecords();

CDataBaseView:

bool readFromFile(char \*filePath); //ensure the filePath is a avliable path,or maybe error.

bool saveAsFile(char \*filePath);//ensure the filePath is a avliable path,or maybe error.

void printAll();

void addType(char \*typeName,int valueLen=15);

void inputData();

void setColMask(bool b);

void setRowMask(bool b);

bool \*getColMask();

bool \*getRowMask();

TypeInfo:

bool setName(char \*tname);

char \*getName();

void setMaxLen(int a);

int getMaxLen();