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| node<T> |
| Private:  - |
| Public:  T data  node<T>\* next  node()  node(T d,note<T>\* n=0) |

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| sList |
| Private:  node<T>\* head  node<T>\* tail  Int size  remove(node<T>\*)  removeWithoutDel(node<T>\*) |
| Public:  sList()  sList(sList const&);  ~sList();  //insert operations with values  void insertAtStart(T const& val);  void insertAtEnd(T const& val);//uses operator=  void insertAfter(T const& val,T const& after); //throws invalid arguemnt  //remove operations  void remove(T val);  void removeWithoutDel(T val);  node<T>\* find(T const& val);  print() const;  int getSize() const { return size; }  T& operator[](int n); //throws invalid argument  operator=(sList const&); |

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| block |
| Private:  int start\_sector\_ID;  int total\_sectors; |
| Public:  block(int total, int start);  block(block const&);  int getstart();  void setstart(int);  int getTotal();  void setTotal(int);  block& operator=(block const&);  friend std::ostream& operator<<(std::ostream& s, block const&); |

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| file |
| Private:  std::string name;  int size;  sList<block\*> blockList; |
| Public:  File(std::string name, int size);  File(File const&);  ~File();  void addBlock(block\*);  std::string getName() { return name; };  void operator=(File const&);  friend std::ostream& operator<<(std::ostream& os, File const&); |

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| fileSystem |
| Private:  sList<block\*> pool;//sorted  sList<File\*> files;  char\* disk;  int numOfSectors;  int numOfSectPool;  int sizeOfSectors;  void allocateSector(int& FileSectLeft, File\* tempFile, std::string content);  void writeToDisk(int startSector, int sizeinSector, std::string content);  void insertBlockinPool(block\*);  void mergePoolBlocks();  std::string readDisk(int startSector, int sizeinSector); |
| Public:  fileSystem(int sectors, int sectorSize);  ~fileSystem();  //throws invalid argument  void saveFile(std::string fname, std::string fcontent, int fsize);  void deleteFile(std::string fname);  std::string readFile(std::string fname);  friend std::ostream& operator<<(std::ostream& os, fileSystem &);  void printDisk(); |