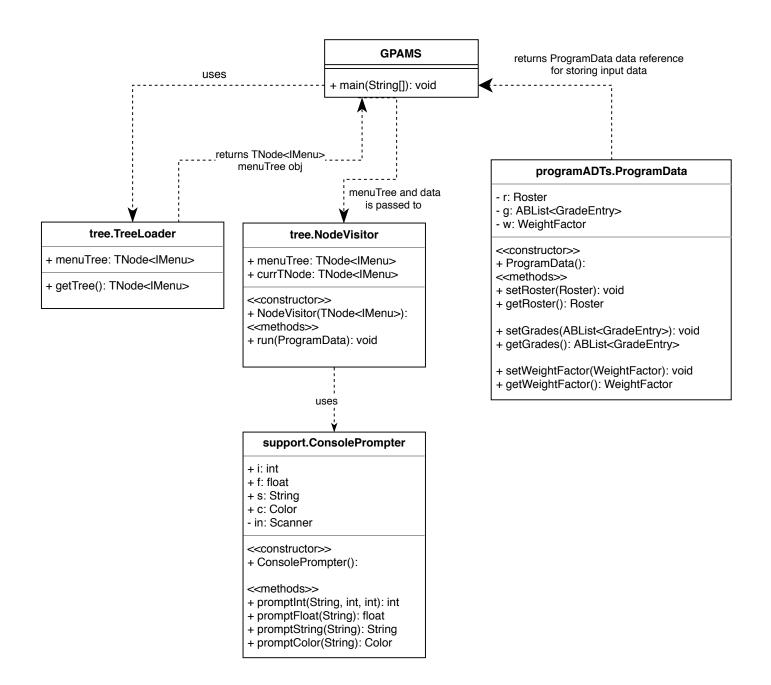
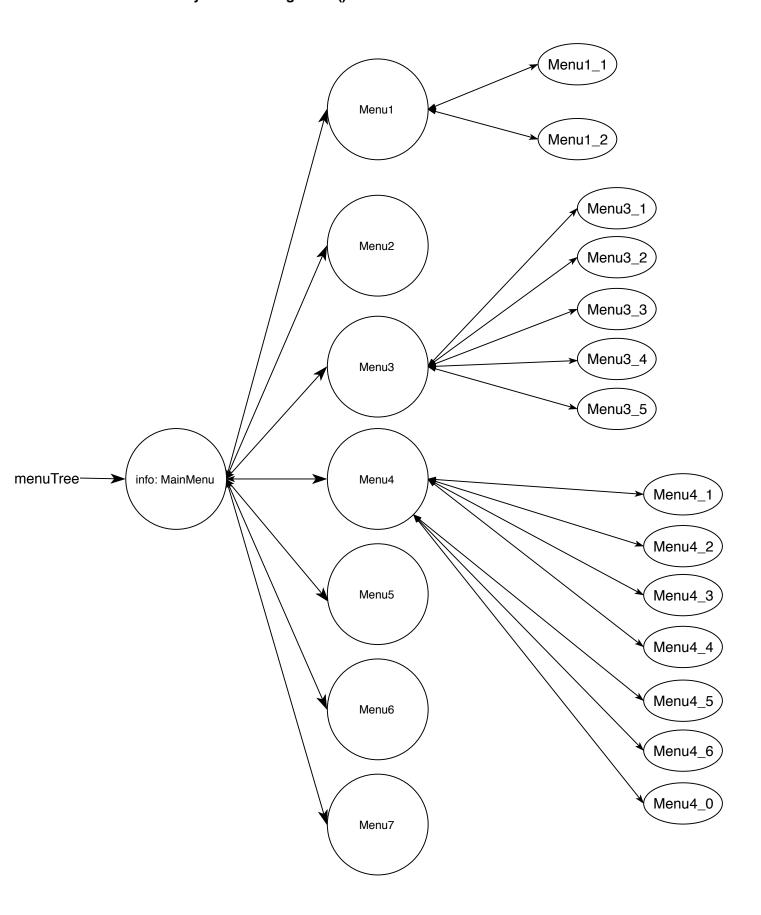
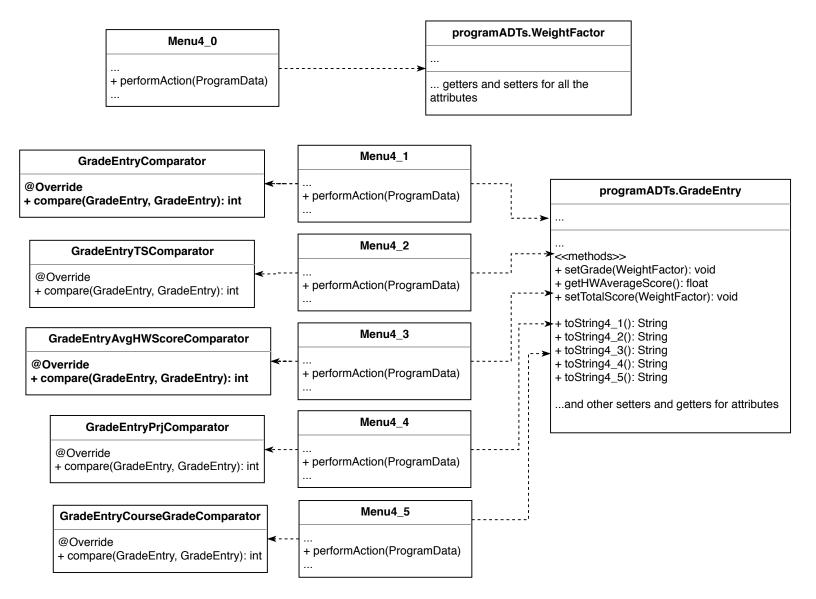
Main Program - GPAMS class



Tree ADT created by TreeLoader.getTree()



Use of specific classes in menu objects (2)



NodeVisitor

- + menuTree: TNode<IMenu> + currTNode: TNode<IMenu>
- <<constructor>>
- + NodeVisitor(TNode<IMenu>):
- <<methods>>
- + run(ProgramData): void

TNode<T>

info: T

parent: TNode<T>

children: ArrayList<TNode<T>>

noOfChildren: int

<<constructors>>

- + TNode():
- + TNode(TNode<T>, T>:
- + TNode(TNode<T>, T, ArrayList<TNode<T>>):
- <<methods>>
- + getInfo(): T + setInfo(T): void
- + getParent(): TNode<T> + setParent(TNode<T>): void
- + getChildren(): ArrayList<TNode<T>>
- + getChild(int): TNode<T> + addChild(TNode<T>): void
- + getNoOfChildren(): int
- + isRoot(): boolean
- + isLeaf(): boolean

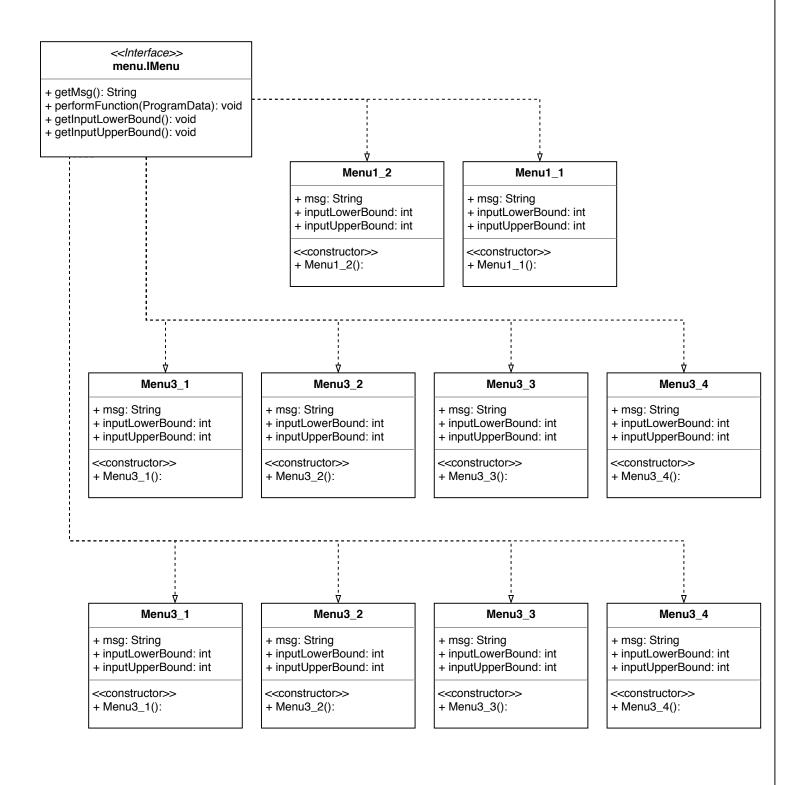
TreeLoader

+ menuTree: TNode<IMenu>

+ getTree(): TNode<IMenu>

uses

<constructor>> + Menu6():



origCap: int

location: int

+ ABList(int):

<<methods>> # enlarge(): void

find(T): void

+ iterator(): Iterator<T>

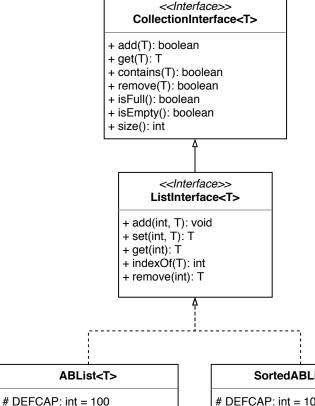
... and implemented methods

elements: T[]

found: boolean

<<constructor>>

numElements: int = 0



SortedABList<T>

DEFCAP: int = 100

list: T[]

numElements: int = 0 # comp: Comparator<T>

found: boolean # location: int

<<constructor>>

+ SortedABList():

+ SortedABList(Comparator<T>):

<<methods>>

enlarge(): void

find(T): void

recFind(T, int, int): void

+ iterator(): Iterator<T>

... and implemented methods

DLLNode<T>

- info: T

~ forward: DLLNode<T> ~ back: DLLNode<T>

<<constructor>>

+ DLLNode(T):

+ DLLNode():

<<method>>

+ setInfo(T): void

+ getInfo(): T

+ setForward(DLLNode<T>): void

+ setBackward(DLLNode<T>: void

+ getForward(): DLLNode<T>

+ getBack(): DLLNode<T>

ProgramData

- r: Roster
- g: ABList<GradeEntry>
- w: WeightFactor

<<constructor>>

- + ProgramData():
- <<methods>>
- + setRoster(Roster): void
- + getRoster(): Roster
- + setGrades(ABList<GradeEntry>): void
- + getGrades(): ABList<GradeEntry>
- + setWeightFactor(WeightFactor): void
- + getWeightFactor(): WeightFactor

Roster

- noOfSites: int
- studentsPerSite: int[]
- totalClassSize: int
- noOfAssignments: int
- noOfProjects: int
- noOfExams: int

<<constructor>>

- + Roster():
- <<methods>>
- <<setters>>
- + setNoOfSize(int): void
- + setStudentsPerSite(int[])

throws InputMismatchException: void

- + setNoOfAssignments(int): void
- + setNoOfProjects(int): void
- + setNoOfExams(int): void
- <<getters>>
- + getNoOfSites(): int
- + getStudentsPerSite(): int[]
- + getTotalClassSize(): int
- + getNoOfAssignments(): int
- + getNoOfProjects(): int
- + getNoOfExams(): int

GradeEntry

- firstName, lastName: String
- SID: String
- classNumber: String
- site: String
- homeworkScores: ABList<Integer>
- projectScore: float
- midtermScore: int
- finalScore: int
- totalScore: float
- grade: char

<<constructor>>

- + GradeEntry():
- + GradeEntry(String, String, String):

<<methods>>

- + setGrade(WeightFactor): void
- + getHWAverageScore(): float
- + setTotalScore(WeightFactor): void
- + toString4_1(): String
- + toString4_2(): String
- + toString4_3(): String
- + toString4_4(): String
- + toString4_5(): String
- ...and other setters and getters for attributes

WeightFactor

- finalExamWeight: int
- midtermExamWeight: int
- projectWeight: int
- homeworkWeight: int
- totalWeight: int

<<constructor>>

- + WeightFactor():
- + WeightFactor(int, int, int, int):

<<methods>>

- + getTotalWeight(): int
- ... and getters and setters for all the attributes

ConsolePrompter

- + i: int
- + f: float
- + s: String
- + c: Color
- in: Scanner

<<constructor>>

+ ConsolePrompter():

- <<methods>>
 + promptInt(String, int, int): int
 + promptFloat(String): float
 + promptString(String): String

- + promptColor(String): Color

DataSearcher

- data: ProgramDatasearchOption: int
- matchString: String

<<constructor>>

- + DataSearcher(ProgramData, int, String):
- <<methods>>
- + printResult(): void

GradeParser

- + path: String; + GradeList: ABList<GradeEntry>

<<constructor>>

+ GradeParser(String):

<<methods>>

- + setPath(String): void
- + getParsedList(): ABList<GradeEnrty>
- parse(): void

