Capstone Assignment UML Class Diagram 1.1
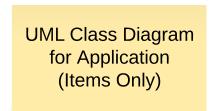**Software Design and Architecture Specialization**
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UML Class Diagram
for Application
(Items Only)

Software Design and
Architechture Assignment ✏

The <u>six</u> classes are:
- AppCompatActivity
- AddItemActivity
- EditItemActivity
- ItemList
- Item
- Dimensions

The <u>three types</u> of relationships are:
- Aggregation
- Composition
- Inheritance

Lucidchart basics

AppCompatActivity

Fragment

FragmentPagerAdapter

EditItemActivity
- title: EditText
- maker: EditText
- description: EditText
- length: EditText
- width: EditText
- height: EditText
- photo: ImageView
- image: Bitmap
- REQUEST_CODE: int = 1
- item_list: ItemList = new ItemList() - context: Context
- item: Item
- borrower: EditText
- borrower_tv: TextView
- status: Switch

\# onCreate(savedInstanceState: Bundle):void
+ saveItem(view: View): void
+ deleteItem(view: View): void
+ toggleSwitch(view: View): void addPhoto(view: View): void
+ deletePhoto(view: View): void
\# onActivityResult(request_code: int, result_code: int): void

ArrayAdapter<item>

MainActivity

\# onCreate(savedInstanceState: Bundle) : void
+ onCreateOptionsMenu(menu : Menu): boolean
+ onOptionItemSelected(item : MenuItem) : boolean
+ addItemActivity(view : View) :void

SectionsPagerAdapter

+ getItem(position: int): Fragment
+ getCount(): int
+ getPageTitle(position: int): CharSequence

ItemsFragment
+ Item_list: ItemList
+ roomView: View
+ list_View: List_View
+ adapter: ArrayAdapter<item>
+ selected_Items:ArrayList<item>
+ inflater: LayoutInflater
+ container: ViewGroup
+ context: Context

+ onCreateView(inflator: LayoutInflater, container: ViewGroup, savedInstanceState: Bundle): view
+ setVariables(resource: int, Id: int) : Void
+ setAdapter(fragment: Fragment) : Void
+ *filterItems(): ArrayList<Item>*

ItemAdapter
- inflator: LayoutInflator
- fragment: Fragment
- context: Context

+ getView(position: int, convertView: View, parent:ViewGroup): View

AllItemsFragment

+ onCreateView(inflator: LayoutInflater, container: ViewGroup, savedInstanceState: Bundle): view
+ *filterItems(): ArrayList<Item>*

BorrowedItemsFragment

+ onCreateView(inflator: LayoutInflater, container: ViewGroup, savedInstanceState: Bundle): view
+ *filterItems(): ArrayList<Item>*

AvailableItemsFragment

+ onCreateView(inflator: LayoutInflater, container: ViewGroup, savedInstanceState: Bundle): view
+ *filterItems(): ArrayList<Item>*

Item
- title: String
- maker: String
- description: String
- dimensions: Dimensions
- status: String
- borrower: String
- id: String

+ setId():void
+ getId(): String
+ updateId(id: String): void
+ setTitle(title: String): void
+ getTitle(): String
+ setMaker(maker: String): void
+ getMaker(): String
+ setDescription(description: String): void
+ getDescription(): String
+ setStatus(status: String): void
+ getStatus(): String
+ setTitle(title: String): void
+ getTitle(): String
+ setBorrower(borrower: String): void
+ getBorrower(): String
+ addImage(new_image: Bitmap): void
+ getImage(): Bitmap
+ setDimensions(dimensions: Dimensions): void
+ getDimensions(): Dimensions

Dimensions
- length: String
- width: String
- height: String

+ getLength(): String
+ getWidth(): String
+ getHeight(): String
+ setDimensions(length: String, width: String, height: String): void
+ getDimensions(): String

AddItemActivity
- title: EditText
- maker: EditText
- description: EditText
- lenght: EditText
- width: EditText
- height: EditText
- photo: ImageView
- image: Bitmap
- REQUEST_CODE: Int
- item_list:ItemList
- context:Context

\# onCreate(savedInstanceState: Bundle): void
+ saveItem(view: View): void
+ addPhoto(view: View): void
+ deletePhoto(view: View): void
\# onActivityResult(request_code: int,result_code:int, intenet: intent): void

ItemList
- items: ArrayList<items>
- FILENAME: string

+ setItems(item_list: ArrayList<item>): void
+ getItems(): ArrayList<item>
+ addItem(item: Item): void
+ deleteItem(item: Item): void
+ getItem(index: int): item
+ getIndex(item: Item): int
+ getSize(): int
+ loadItems(context: Context): void
+ saveItems(context: Context): void
+ filterItemsByStatus(status: String): ArrayList<item>