

# Data Modeling Report

## Class Diagram

Version 1.0 • Proposed



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# Class Diagram

Package in package 'SPFG'

Class Diagram

Version 1.0 Phase 1.0 Proposed

Dave created on 08/05/2018. Last modified 08/05/2018

Alias

## Class Diagram diagram

Class diagram in package 'Class Diagram'

Class Diagram

Version 1.0

TOSHIBA created on 08/05/2018. Last modified 08/05/2018

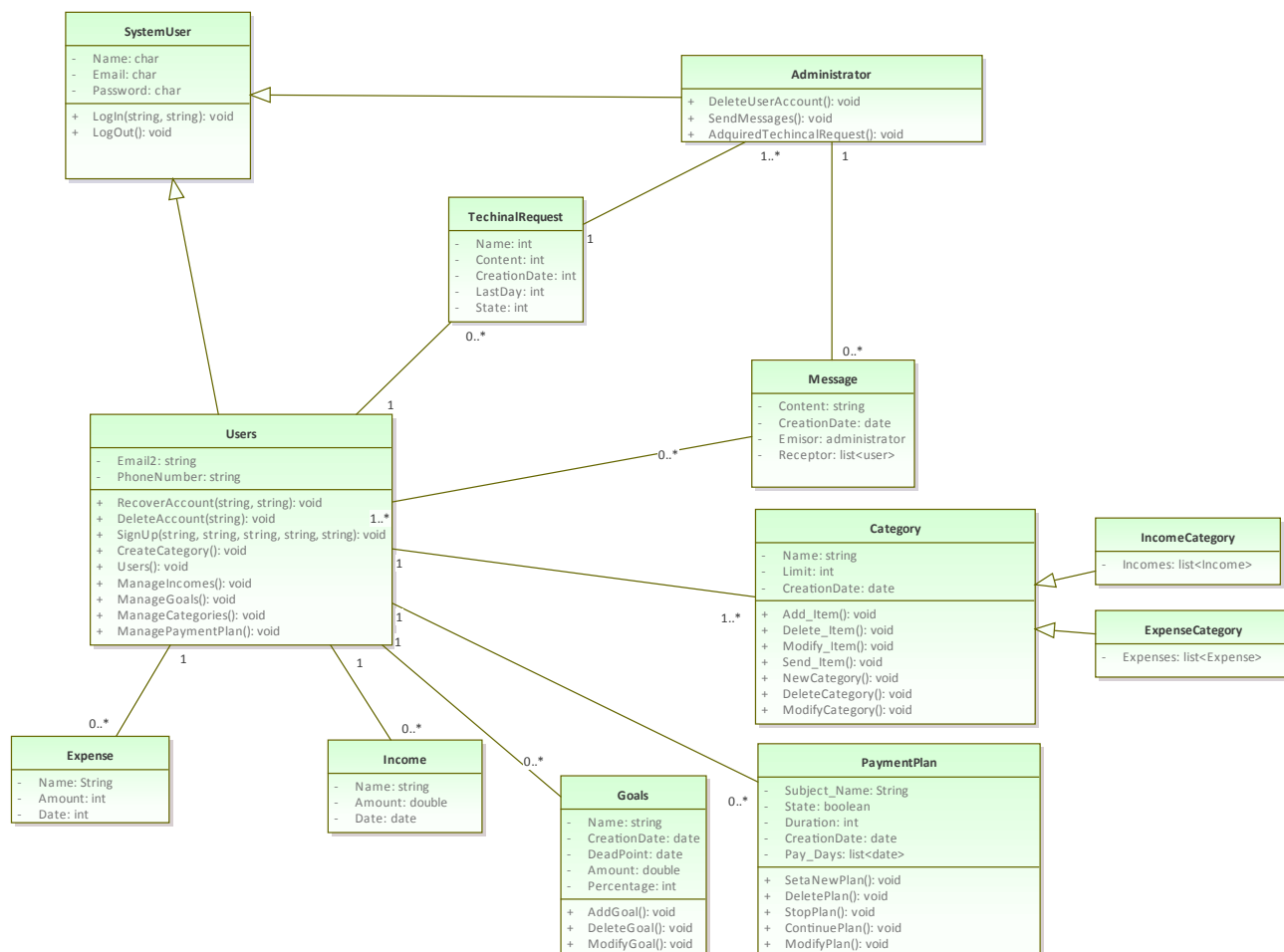


Figure 1: Class Diagram

## Administrator

*Class in package 'Class Diagram'*

Administrator  
 Version 1.0 Phase 1.0 Proposed  
 Dave created on 08/05/2018. Last modified 08/05/2018  
 Extends SystemUser

**OUTGOING STRUCTURAL RELATIONSHIPS**

← Generalization from Administrator to SystemUser

[ Direction is 'Source -> Destination'. ]

**ASSOCIATIONS**

✎ Association (direction: Unspecified)

Source: Public (Class) Administrator  
 Cardinality: [1]

Target: Public (Class) Message  
 Cardinality: [0..\*]

✎ Association (direction: Unspecified)

Source: Public (Class) TechinalRequest  
 Cardinality: [1]

Target: Public (Class) Administrator  
 Cardinality: [1..\*]

**OPERATIONS**

◆ DeleteUserAccount () : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

◆ SendMessages () : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

◆ AcquiredTechincalRequest () : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

## Category

*Class in package 'Class Diagram'*

Category  
 Version 1.0 Phase 1.0 Proposed  
 Dave created on 08/05/2018. Last modified 08/05/2018

**INCOMING STRUCTURAL RELATIONSHIPS**

⇒ Generalization from IncomeCategory to Category

[ Direction is 'Source -> Destination'. ]

**INCOMING STRUCTURAL RELATIONSHIPS**

➡ Generalization from ExpenseCategory to Category

[ Direction is 'Source -> Destination'. ]

**ATTRIBUTES**

◆ Name : string Private

[ Is static False. Containment is Not Specified. ]

◆ Limit : int Private

[ Is static False. Containment is Not Specified. ]

◆ CreationDate : date Private

[ Is static False. Containment is Not Specified. ]

**ASSOCIATIONS**

✎ Association (direction: Unspecified)

Source: Public (Class) Users  
Cardinality: [1]

Target: Public (Class) Category  
Cardinality: [1..\*]

**OPERATIONS**

◆ Add\_Item () : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

◆ Delete\_Item () : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

◆ Modify\_Item () : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

◆ Send\_Item () : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

◆ NewCategory () : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

◆ DeleteCategory () : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

◆ ModifyCategory () : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

## Expense

Class in package 'Class Diagram'

Expense  
Version 1.0 Phase 1.0 Proposed  
TOSHIBA created on 08/05/2018. Last modified 08/05/2018

### ATTRIBUTES

 Name : String Private	[ Is static False. Containment is Not Specified. ]
 Amount : int Private	[ Is static False. Containment is Not Specified. ]
 Date : int Private	[ Is static False. Containment is Not Specified. ]

### ASSOCIATIONS


 Association (direction: Unspecified)	
Source: Public (Class) Users Cardinality: [1]	Target: Public (Class) Expense Cardinality: [0..*]

## ExpenseCategory

Class in package 'Class Diagram'

ExpenseCategory  
Version 1.0 Phase 1.0 Proposed  
TOSHIBA created on 08/05/2018. Last modified 08/05/2018  
Extends Category

### OUTGOING STRUCTURAL RELATIONSHIPS

 Generalization from ExpenseCategory to Category	[ Direction is 'Source -> Destination'. ]
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### ATTRIBUTES

 Expenses : list<Expense> Private	[ Is static False. Containment is Not Specified. ]
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# ExpensePaymentPlan


Class in package 'Class Diagram'


ExpensePaymentPlan  
Version 1.0 Phase 1.0 Proposed  
TOSHIBA created on 08/05/2018. Last modified 08/05/2018



## Goals

Class in package 'Class Diagram'

Goals  
Version 1.0 Phase 1.0 Proposed  
Dave created on 08/05/2018. Last modified 08/05/2018

ATTRIBUTES	
 Name : string Private	[ Is static False. Containment is Not Specified. ]
 CreationDate : date Private	[ Is static False. Containment is Not Specified. ]
 DeadPoint : date Private	[ Is static False. Containment is Not Specified. ]
 Amount : double Private	[ Is static False. Containment is Not Specified. ]
 Percentage : int Private	[ Is static False. Containment is Not Specified. ]

ASSOCIATIONS	
 Association (direction: Unspecified)	
Source: Public (Class) Users Cardinality: [1]	Target: Public (Class) Goals Cardinality: [0..*]

OPERATIONS	
 AddGoal () : void Public	[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]
 DeleteGoal () : void Public	[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

**OPERATIONS**

✦ ModifyGoal () : void Public  
[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

## Income

*Class in package 'Class Diagram'*

Income

Version 1.0 Phase 1.0 Proposed

TOSHIBA created on 08/05/2018. Last modified 08/05/2018

**ATTRIBUTES**

◆ Name : string Private  
[ Is static False. Containment is Not Specified. ]

◆ Amount : double Private  
[ Is static False. Containment is Not Specified. ]

◆ Date : date Private  
[ Is static False. Containment is Not Specified. ]

**ASSOCIATIONS**

✍ Association (direction: Unspecified)

Source: Public \*.1 (Class) Income  
Cardinality: [0..\*]

Target: Public (Class) Users  
Cardinality: [1]

## IncomeCategory

*Class in package 'Class Diagram'*

IncomeCategory

Version 1.0 Phase 1.0 Proposed

Dave created on 08/05/2018. Last modified 08/05/2018

Extends Category

**OUTGOING STRUCTURAL RELATIONSHIPS**

↔ Generalization from IncomeCategory to Category  
[ Direction is 'Source -> Destination'. ]

**ATTRIBUTES**



**ATTRIBUTES** Incomes : list<Income> Private

[ Is static False. Containment is Not Specified. ]

## IncomePaymentPlan

*Class in package 'Class Diagram'*

IncomePaymentPlan

Version 1.0 Phase 1.0 Proposed

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## IncomePaymentPlan

*Class in package 'Class Diagram'*

IncomePaymentPlan

Version 1.0 Phase 1.0 Proposed

TOSHIBA created on 08/05/2018. Last modified 08/05/2018


## Message

*Class in package 'Class Diagram'*

Message

Version 1.0 Phase 1.0 Proposed


Dave created on 08/05/2018. Last modified 08/05/2018

**ATTRIBUTES** Content : string Private

[ Is static False. Containment is Not Specified. ]

 CreationDate : date Private

[ Is static False. Containment is Not Specified. ]


 Emissor : administrator Private

[ Is static False. Containment is Not Specified. ]

 Receptor : list<user> Private

[ Is static False. Containment is Not Specified. ]

**ASSOCIATIONS** Association (direction: Unspecified)

ASSOCIATIONS	
Source: Public (Class) Users Cardinality: [1..*]	Target: Public (Class) Message Cardinality: [0..*]
 Association (direction: Unspecified)	
Source: Public (Class) Administrator Cardinality: [1]	Target: Public (Class) Message Cardinality: [0..*]



## PaymentPlan




*Class in package 'Class Diagram'*

PaymentPlan  
Version 1.0 Phase 1.0 Proposed  
TOSHIBA created on 08/05/2018. Last modified 08/05/2018

ATTRIBUTES	
 Subject_Name : String Private	[ Is static False. Containment is Not Specified. ]
 State : boolean Private	[ Is static False. Containment is Not Specified. ]
 Duration : int Private	[ Is static False. Containment is Not Specified. ]
 CreationDate : date Private	[ Is static False. Containment is Not Specified. ]
 Pay_Days : list<date> Private	[ Is static False. Containment is Not Specified. ]

ASSOCIATIONS	
 Association (direction: Unspecified)	
Source: Public (Class) Users Cardinality: [1]	Target: Public (Class) PaymentPlan Cardinality: [0..*]



OPERATIONS	
 SetaNewPlan () : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]	
 DeletePlan () : void Public	

OPERATIONS
[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]
 StopPlan () : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]
 ContinuePlan () : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]
 ModifyPlan () : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]



## SystemUser

*Class in package 'Class Diagram'*

SystemUser  
Version 1.0 Phase 1.0 Proposed  
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INCOMING STRUCTURAL RELATIONSHIPS
 Generalization from Administrator to SystemUser [ Direction is 'Source -> Destination'. ]
 Generalization from Users to SystemUser [ Direction is 'Source -> Destination'. ]

ATTRIBUTES
 Name : char Private [ Is static False. Containment is Not Specified. ]
 Email : char Private [ Is static False. Containment is Not Specified. ]
 Password : char Private [ Is static False. Containment is Not Specified. ]

OPERATIONS
 LogIn (Email : string , Password : string ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]
 LogOut () : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

**OPERATIONS**

## TechinalRequest



*Class in package 'Class Diagram'*

TechinalRequest  
Version 1.0 Phase 1.0 Proposed  
TOSHIBA created on 08/05/2018. Last modified 08/05/2018

**ATTRIBUTES**

 Name : int Private	[ Is static False. Containment is Not Specified. ]
 Content : int Private	[ Is static False. Containment is Not Specified. ]
 CreationDate : int Private	[ Is static False. Containment is Not Specified. ]
 LastDay : int Private	[ Is static False. Containment is Not Specified. ]
 State : int Private	[ Is static False. Containment is Not Specified. ]

**ASSOCIATIONS**

 Association (direction: Unspecified)	
Source: Public (Class) TechinalRequest Cardinality: [1]	Target: Public (Class) Administrator Cardinality: [1..*]
 Association (direction: Unspecified)	
Source: Public (Class) Users Cardinality: [1]	Target: Public (Class) TechinalRequest Cardinality: [0..*]

## Users

*Class in package 'Class Diagram'*

Users  
Version 1.0 Phase 1.0 Proposed  
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**OUTGOING STRUCTURAL RELATIONSHIPS**

← Generalization from Users to SystemUser

[ Direction is 'Source -> Destination'. ]

**ATTRIBUTES**

◆ Email2 : string Private

[ Is static False. Containment is Not Specified. ]

◆ PhoneNumber : string Private

[ Is static False. Containment is Not Specified. ]

**ASSOCIATIONS**

✍ Association (direction: Unspecified)

Source: Public (Class) Users  
Cardinality: [1]

Target: Public (Class) PaymentPlan  
Cardinality: [0..\*]

✍ Association (direction: Unspecified)

Source: Public (Class) Users  
Cardinality: [1]

Target: Public (Class) TechninalRequest  
Cardinality: [0..\*]

✍ Association (direction: Unspecified)

Source: Public (Class) Users  
Cardinality: [1..\*]

Target: Public (Class) Message  
Cardinality: [0..\*]

✍ Association (direction: Unspecified)

Source: Public (Class) Users  
Cardinality: [1]

Target: Public (Class) Goals  
Cardinality: [0..\*]

✍ Association (direction: Unspecified)

Source: Public (Class) Users  
Cardinality: [1]

Target: Public (Class) Category  
Cardinality: [1..\*]

✍ Association (direction: Unspecified)

Source: Public (Class) Users  
Cardinality: [1]

Target: Public (Class) Expense  
Cardinality: [0..\*]

✍ Association (direction: Unspecified)

Source: Public \*..1 (Class) Income  
Cardinality: [0..\*]

Target: Public (Class) Users  
Cardinality: [1]

**ASSOCIATIONS****OPERATIONS**

◆ RecoverAccount (Email : string , Password : string ) : void Public  
[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

◆ DeleteAccount (Password : string ) : void Public  
[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

◆ SignUp (Name : string , Email : string , Password : string , Email2 : string , PhoneNumber : string ) : void Public  
[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

◆ CreateCategory () : void Public  
[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

◆ Users () : void Public  
[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

◆ ManageIncomes () : void Public  
[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

◆ ManageGoals () : void Public  
[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

◆ ManageCategories () : void Public  
[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

◆ ManagePaymentPlan () : void Public  
[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]