My Project

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Chapter 1

Hierarchical Index

1.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

Chapter 2

Class Index

2.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

Chapter 3

Class Documentation

3.1 __pthread_cleanup_frame Struct Reference

Public Attributes

- void(∗ **__cancel_routine**)(void ∗)
- void ∗ **__cancel_arg**
- int **__do_it**
- int **__cancel_type**

The documentation for this struct was generated from the following file:

- pthread.h

3.2 __pthread_unwind_buf_t Struct Reference

Public Attributes

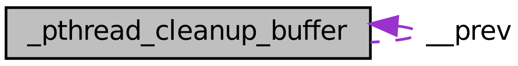
- struct {
    __jmp_buf **__cancel_jmp_buf**
    int **__mask_was_saved**
  } **__cancel_jmp_buf** [1]
- void ∗ **__pad** [4]

The documentation for this struct was generated from the following file:

- pthread.h

3.3 _pthread_cleanup_buffer Struct Reference

Collaboration diagram for _pthread_cleanup_buffer:



Public Attributes

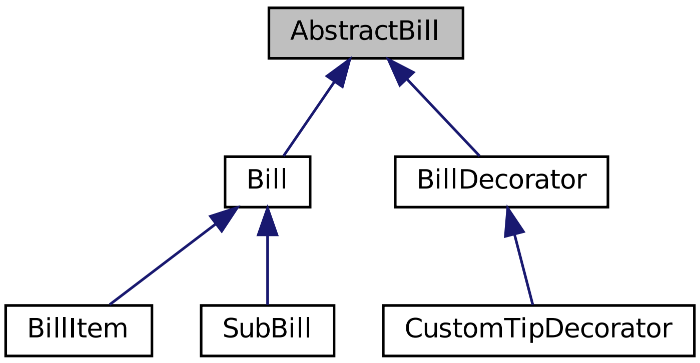
- void(∗ **__routine**)(void ∗)
- void ∗ **__arg**
- int **__canceltype**
- struct _pthread_cleanup_buffer ∗ **__prev**

The documentation for this struct was generated from the following file:

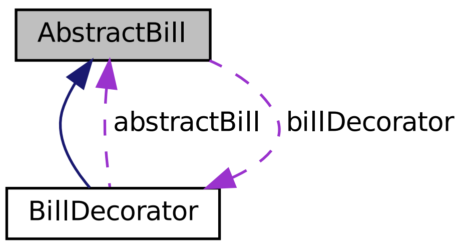
- pthread.h

3.4 AbstractBill Class Reference

Inheritance diagram for AbstractBill:



Collaboration diagram for AbstractBill:



Public Member Functions

- virtual double **getTotalCost** ()=0

Public Attributes

- BillDecorator ∗ **billDecorator** {}

The documentation for this class was generated from the following file:

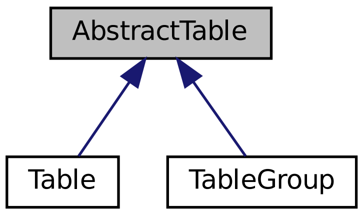
- Bill.h

3.5 AbstractTable Class Reference

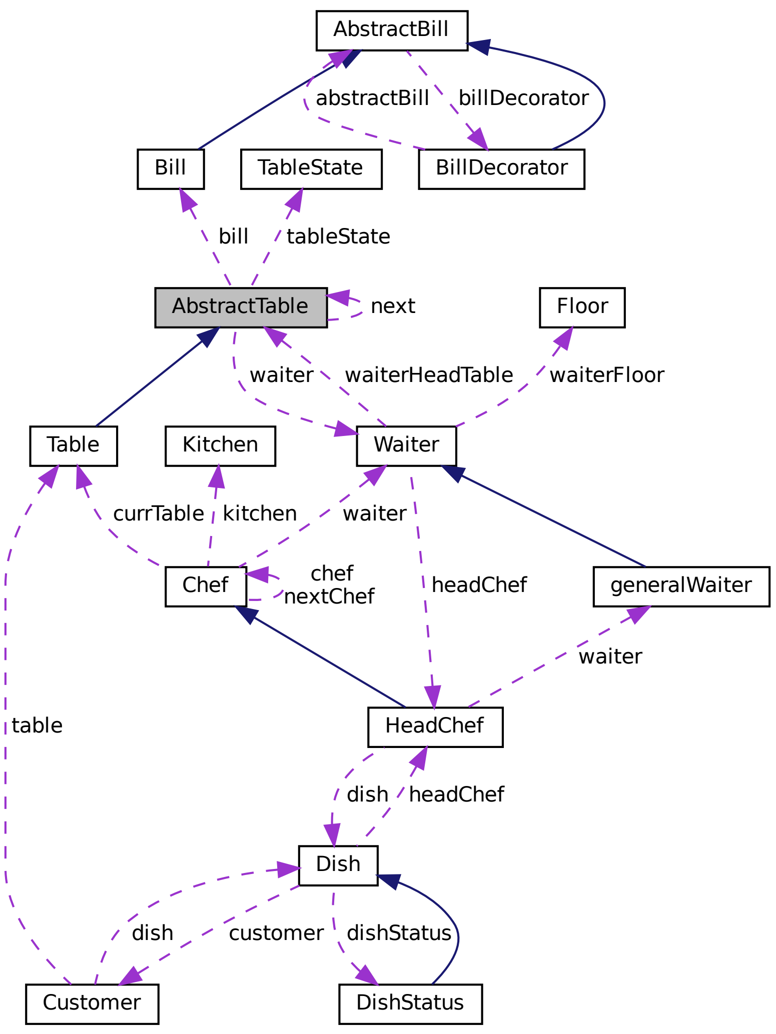
Customers are seated and served at tables.

```
#include <Table.h>
```

Inheritance diagram for AbstractTable:



Collaboration diagram for AbstractTable:



Public Member Functions

- **AbstractTable** (int numberOfSeats)
- virtual void **acceptVisitor** (Visitor ∗visitor)=0
- virtual AbstractTable ∗ **operator+** (TableGroup ∗tableGroup)=0
- virtual AbstractTable ∗ **operator+** (Table ∗table)=0
- virtual AbstractTable ∗ **clone** ()=0
- int getnumberOfSeats ()

  Returns table's number of seats.
- int getTableID ()

  Returns table ID.
- std::vector< Customer ∗ > getCustomers ()

  Returns customers currently at table.
- void setState (TableState ∗tableState)

Sets the state of the table.
- TableState ∗ getState ()

  Returns table's state.
- void handleState ()

  State handler for table class.
- Bill ∗ getBill (Customer ∗customer)

  Returns customer bill.
- void setWaiter (Waiter ∗waiter)

  Sets waiter to the table.
- Waiter ∗ getWaiter ()

  Gets the table's assigned waiter.
- void **getOrders** ()
- void setCustomers (std::vector< Customer ∗ > newCustomers)

  Adds customers to the table.

Public Attributes

- AbstractTable ∗ **next**

Protected Attributes

- TableState ∗ **tableState**
- std::vector< Customer ∗ > **customers**
- Bill ∗ **bill**
- Waiter ∗ **waiter**
- int **numberOfSeats**
- int **tableID**

3.5.1 Detailed Description

Customers are seated and served at tables.

3.5.2 Member Function Documentation

3.5.2.1 getBill()

```
Bill * AbstractTable::getBill (
            Customer * customer )
```

Returns customer bill.

Parameters

customer	

Returns

Bill∗

3.5.2.2 getCustomers()

```
std::vector< Customer * > AbstractTable::getCustomers ( )
```

Returns customers currently at table.

Returns

std::vector<Customer ∗>

3.5.2.3 getnumberOfSeats()

```
int AbstractTable::getnumberOfSeats ( )
```

Returns table's number of seats.

Returns

int

3.5.2.4 getState()

```
TableState * AbstractTable::getState ( )
```

Returns table's state.

Returns

TableState∗

3.5.2.5 getTableID()

```
int AbstractTable::getTableID ( )
```

Returns table ID.

Returns

int

3.5.2.6 getWaiter()

```
Waiter * AbstractTable::getWaiter ( )
```

Gets the table's assigned waiter.

Returns

Waiter∗

3.5.2.7 setCustomers()

```
void AbstractTable::setCustomers (
            std::vector< Customer * > newCustomers )
```

Adds customers to the table.

Parameters

newCustomers	

3.5.2.8 setState()

```
void AbstractTable::setState (
            TableState * tableState )
```

Sets the state of the table.

Parameters

tableState	

3.5.2.9 setWaiter()

```
void AbstractTable::setWaiter (
            Waiter * waiter )
```

Sets waiter to the table.

Parameters

waiter	

The documentation for this class was generated from the following files:

- Table.h
- Table.cpp

3.6 App Class Reference

Public Member Functions

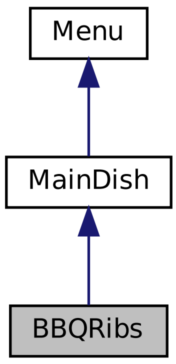
- **App** (int timerSeconds)
- void **startSimulation** ()
- void **setFacade** (Facade ∗f)

The documentation for this class was generated from the following file:

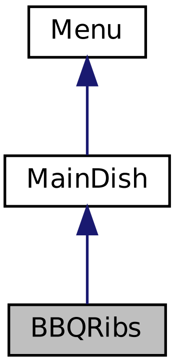
- App.cpp

3.7 BBQRibs Class Reference

Inheritance diagram for BBQRibs:



Collaboration diagram for BBQRibs:



Public Member Functions

- BBQRibs ()

  Constrcutor for BBQ ribs main dish.

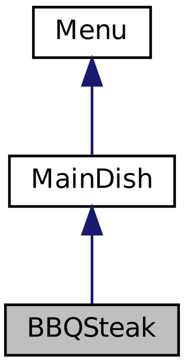
Additional Inherited Members

The documentation for this class was generated from the following files:

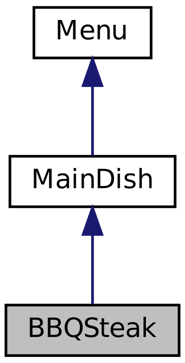
- Menu.h
- Menu.cpp

3.8 BBQSteak Class Reference

Inheritance diagram for BBQSteak:



Collaboration diagram for BBQSteak:



Public Member Functions

- BBQSteak ()

  Constrcutor for BBQ steak main dish.

Additional Inherited Members

The documentation for this class was generated from the following files:

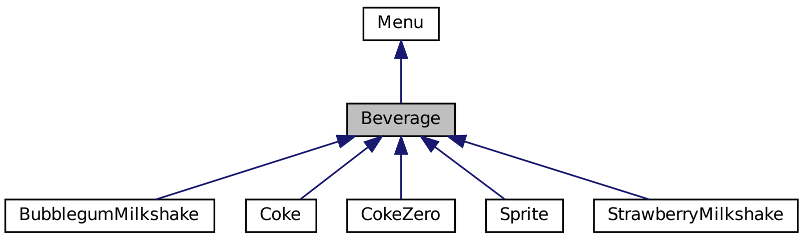
- Menu.h
- Menu.cpp

3.9 Beverage Class Reference

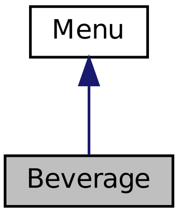
Beverages base class Beverages are coke zero, coke, sprite, strawberry milkshakes and bubblegum milkshakes Beverages will all take 1 second to prepare.

```
#include <Menu.h>
```

Inheritance diagram for Beverage:



Collaboration diagram for Beverage:



Additional Inherited Members

3.9.1 Detailed Description

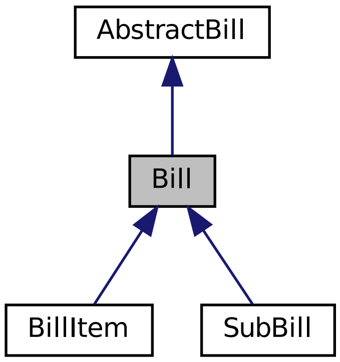
Beverages base class Beverages are coke zero, coke, sprite, strawberry milkshakes and bubblegum milkshakes Beverages will all take 1 second to prepare.

The documentation for this class was generated from the following file:

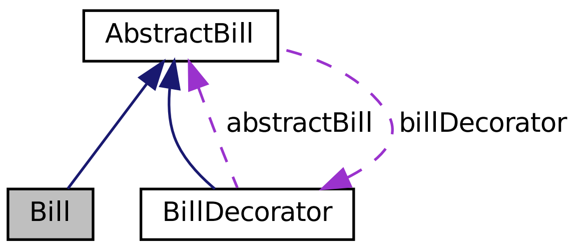
- Menu.h

3.10 Bill Class Reference

Inheritance diagram for Bill:



Collaboration diagram for Bill:



Public Member Functions

- virtual void **paymentMethod** ()
- void **handleTip** ()
- void **getBill** ()
- void **addTip** (float tip)
- **Bill** (double price)
- double **calculateBill** ()
- void **setPaymentMethod** (PaymentStrategy ∗method)
- double **getTotalCost** ()
- virtual void **getSubBill** (std::string customerName)

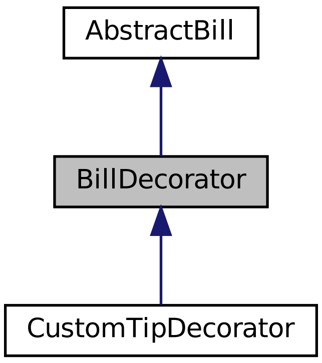
Additional Inherited Members

The documentation for this class was generated from the following files:

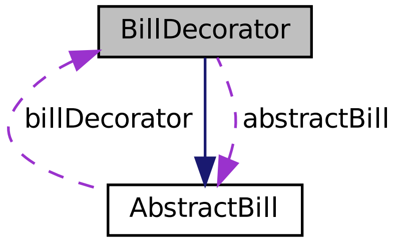
- Bill.h
- Bill.cpp

3.11 BillDecorator Class Reference

Inheritance diagram for BillDecorator:



Collaboration diagram for BillDecorator:



Public Member Functions

- **BillDecorator** (Bill ∗bill)
- double **getTotalCost** ()

Public Attributes

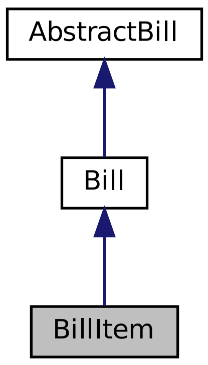
- AbstractBill ∗ **abstractBill**

The documentation for this class was generated from the following files:

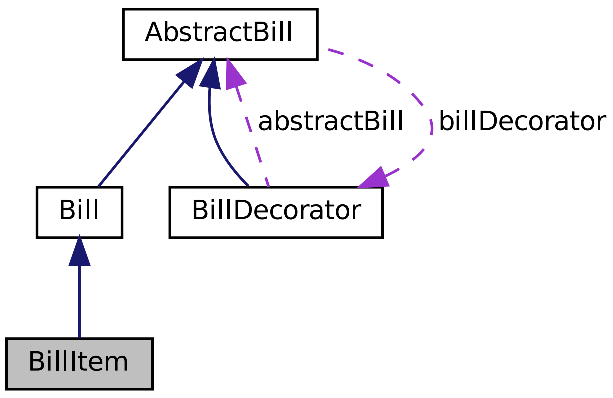
- Bill.h
- Bill.cpp

3.12 BillItem Class Reference

Inheritance diagram for BillItem:



Collaboration diagram for BillItem:



Public Member Functions

- **BillItem** (std::string item, double cost)
- double **getTotalCost** ()

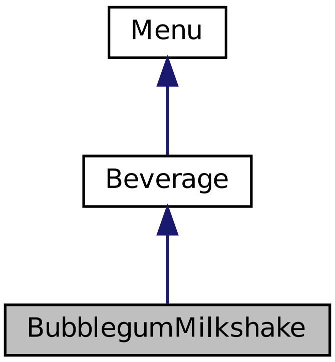
Additional Inherited Members

The documentation for this class was generated from the following files:

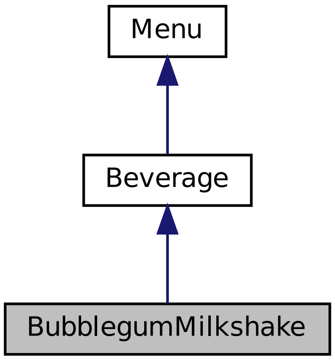
- Bill.h
- Bill.cpp

3.13 BubblegumMilkshake Class Reference

Inheritance diagram for BubblegumMilkshake:



Collaboration diagram for BubblegumMilkshake:



Public Member Functions

- BubblegumMilkshake ()

    Constrcutor for bubblegum milkshake beverage.

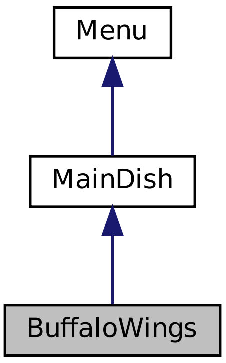
Additional Inherited Members

The documentation for this class was generated from the following files:

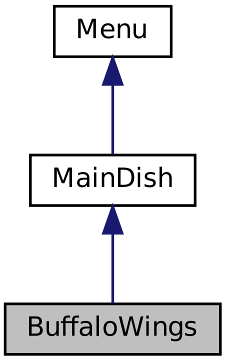
- Menu.h
- Menu.cpp

3.14 BuffaloWings Class Reference

Inheritance diagram for BuffaloWings:



Collaboration diagram for BuffaloWings:



Public Member Functions

- BuffaloWings ()

  Constrcutor for buffalo wings main dish.

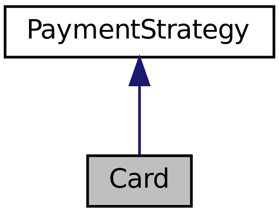
Additional Inherited Members

The documentation for this class was generated from the following files:

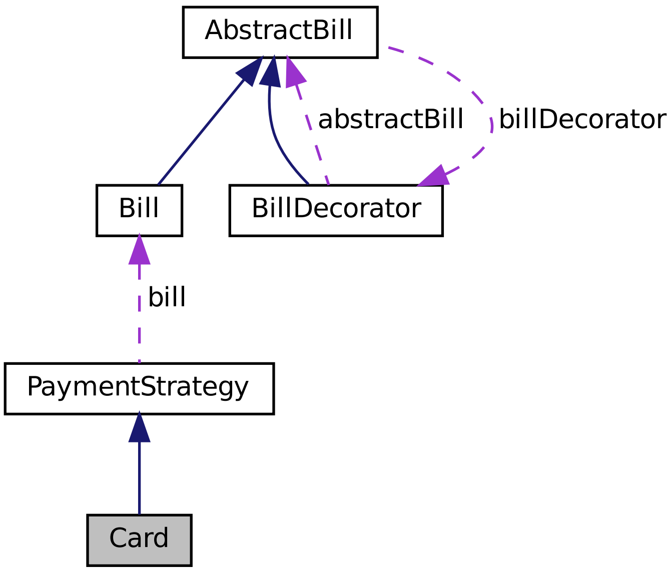
- Menu.h
- Menu.cpp

3.15 Card Class Reference

Inheritance diagram for Card:



Collaboration diagram for Card:



Public Member Functions

- void **paymentMethod** ()
- void **getPaymentMethod** ()

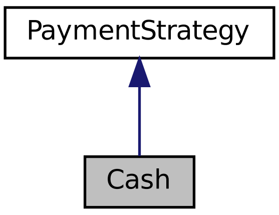
Additional Inherited Members

The documentation for this class was generated from the following files:

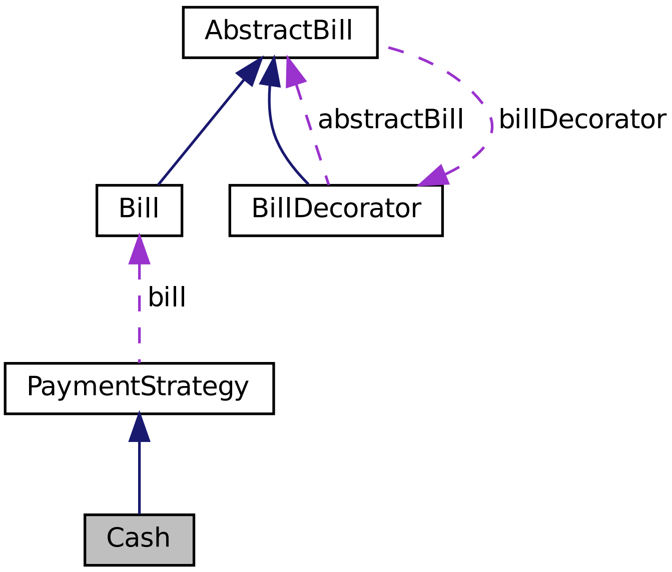
- Bill.h
- Bill.cpp

3.16 Cash Class Reference

Inheritance diagram for Cash:



Collaboration diagram for Cash:



Public Member Functions

- void **paymentMethod** ()
- void **getPaymentMethod** ()

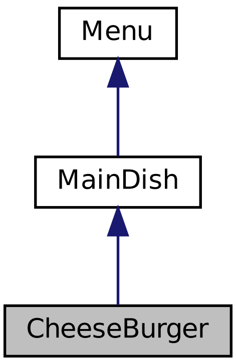
Additional Inherited Members

The documentation for this class was generated from the following files:

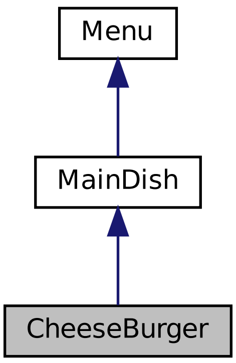
- Bill.h
- Bill.cpp

3.17 CheeseBurger Class Reference

Inheritance diagram for CheeseBurger:



Collaboration diagram for CheeseBurger:



Public Member Functions

- CheeseBurger ()

  Constrcutor for cheese burger main dish.

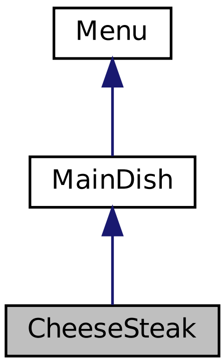
Additional Inherited Members

The documentation for this class was generated from the following files:

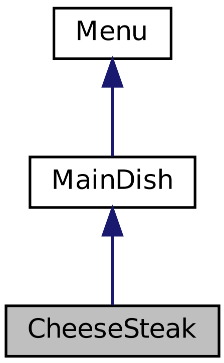
- Menu.h
- Menu.cpp

3.18 CheeseSteak Class Reference

Inheritance diagram for CheeseSteak:



Collaboration diagram for CheeseSteak:



Public Member Functions

- CheeseSteak ()

  Constrcutor for cheesesteak main dish.

Additional Inherited Members

The documentation for this class was generated from the following files:

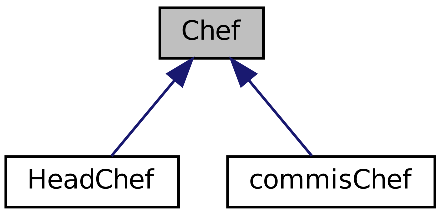
- Menu.h
- Menu.cpp

3.19 Chef Class Reference

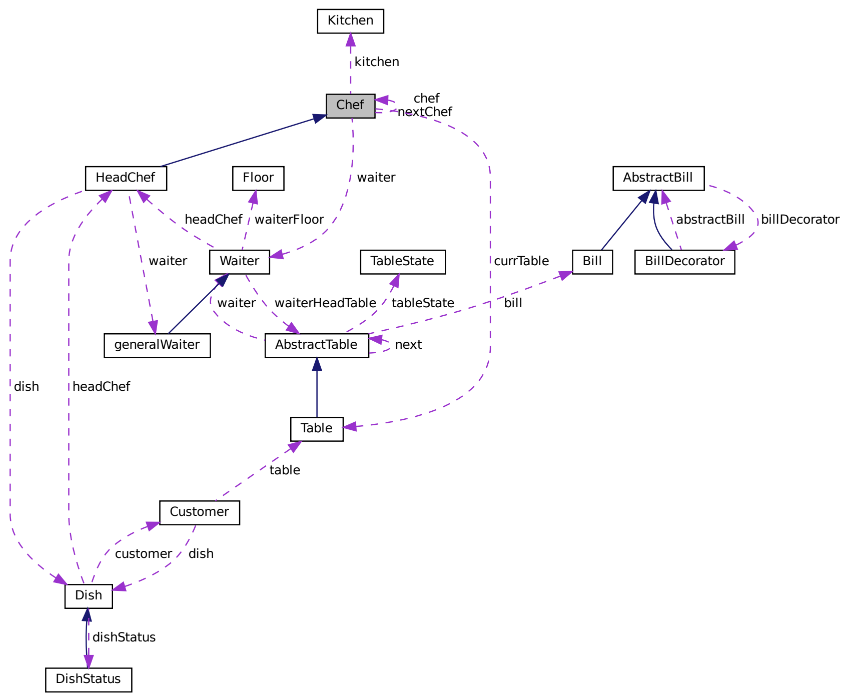
Chef base class Chef classes are commisChef and HeadChef.

```
#include <Chef.h>
```

Inheritance diagram for Chef:



Collaboration diagram for Chef:



Public Member Functions

- void VisitTable (Table ∗table)

  assigns a table to a chef when they visit it
- std::string GetRole ()

  returns what type of chef a specific chef object is, commis or Head
- virtual void **PrepareDish** (Dish ∗dish)=0
- void SetNextChef (Chef ∗chef)

  sets the next chef after the current chef who will carry on the flow of the system

Public Attributes

- Kitchen ∗ **kitchen**
- Chef ∗ **chef**
- Waiter ∗ **waiter**

Protected Attributes

- std::string **role**
- Chef ∗ **nextChef**
- Table ∗ **currTable**

3.19.1 Detailed Description

Chef base class Chef classes are commisChef and HeadChef.

3.19.2 Member Function Documentation

3.19.2.1 GetRole()

```
std::string Chef::GetRole ( )
```

returns what type of chef a specific chef object is, commis or Head

Returns

std::string

3.19.2.2 SetNextChef()

```
void Chef::SetNextChef (
            Chef * chef )
```

sets the next chef after the current chef who will carry on the flow of the system

Parameters

chef	

3.19.2.3 VisitTable()

```
void Chef::VisitTable (
            Table * table )
```

assigns a table to a chef when they visit it

Parameters

table	

The documentation for this class was generated from the following files:

- Chef.h
- Chef.cpp

3.20 ChefNotifier Class Reference

Public Member Functions

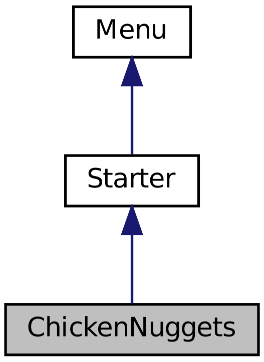
- virtual void **Attach** (Observer ∗observer)=0
- virtual void **Detach** (Observer ∗observer)=0
- virtual void **Notify** ()=0

The documentation for this class was generated from the following file:

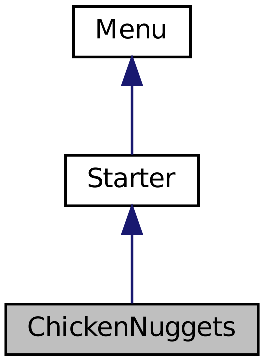
- Chef.h

3.21 ChickenNuggets Class Reference

Inheritance diagram for ChickenNuggets:



Collaboration diagram for ChickenNuggets:



Public Member Functions

- ChickenNuggets ()

  Constrcutor for chicken nuggets starter.

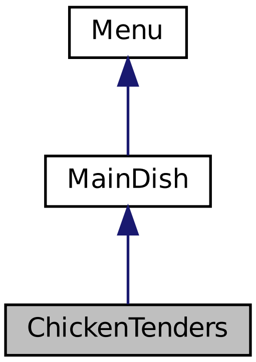
Additional Inherited Members

The documentation for this class was generated from the following files:

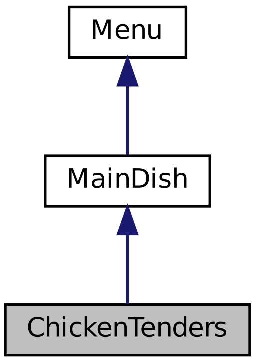
- Menu.h
- Menu.cpp

3.22 ChickenTenders Class Reference

Inheritance diagram for ChickenTenders:



Collaboration diagram for ChickenTenders:



Public Member Functions

- ChickenTenders ()

  Constrcutor for chicken tenders main dish.

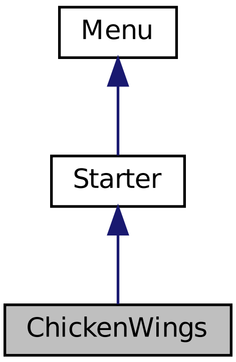
Additional Inherited Members

The documentation for this class was generated from the following files:

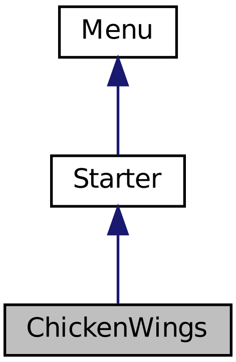
- Menu.h
- Menu.cpp

3.23 ChickenWings Class Reference

Inheritance diagram for ChickenWings:



Collaboration diagram for ChickenWings:



Public Member Functions

- ChickenWings ()

  Constrcutor for chicken wings starter.

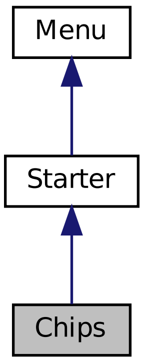
Additional Inherited Members

The documentation for this class was generated from the following files:

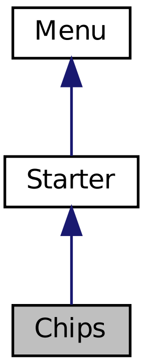
- Menu.h
- Menu.cpp

3.24 Chips Class Reference

Inheritance diagram for Chips:



Collaboration diagram for Chips:



Public Member Functions

- Chips ()

  Constrcutor for chips starter.

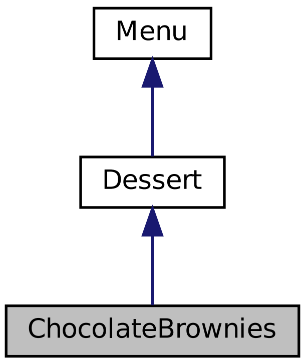
Additional Inherited Members

The documentation for this class was generated from the following files:

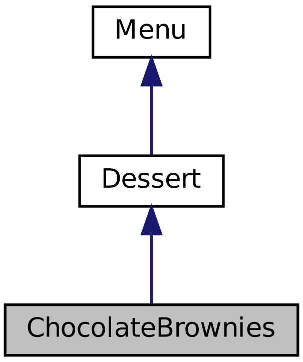
- Menu.h
- Menu.cpp

3.25 ChocolateBrownies Class Reference

Inheritance diagram for ChocolateBrownies:



Collaboration diagram for ChocolateBrownies:



Public Member Functions

- ChocolateBrownies ()

  Constrcutor for chocolate brownies dessert.

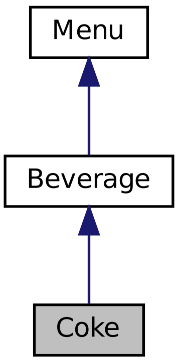
Additional Inherited Members

The documentation for this class was generated from the following files:

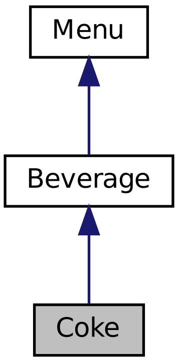
- Menu.h
- Menu.cpp

3.26 Coke Class Reference

Inheritance diagram for Coke:



Collaboration diagram for Coke:



Public Member Functions

- Coke ()

  Constrcutor for Coke beverage.

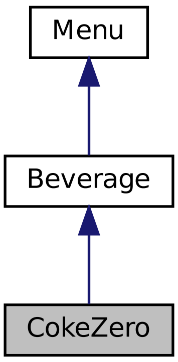
Additional Inherited Members

The documentation for this class was generated from the following files:

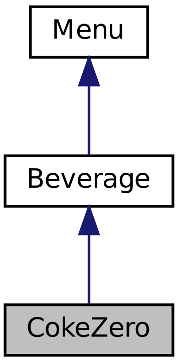
- Menu.h
- Menu.cpp

3.27 CokeZero Class Reference

Inheritance diagram for CokeZero:



Collaboration diagram for CokeZero:



Public Member Functions

- CokeZero ()

    Constrcutor for CokeZero beverage.

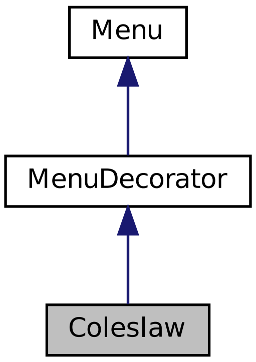
Additional Inherited Members

The documentation for this class was generated from the following files:

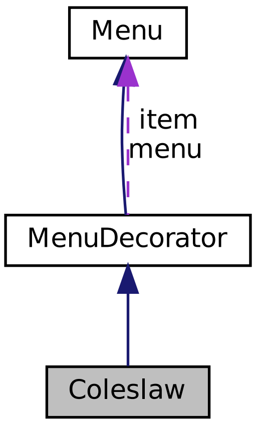
- Menu.h
- Menu.cpp

3.28 Coleslaw Class Reference

Inheritance diagram for Coleslaw:



Collaboration diagram for Coleslaw:



Public Member Functions

- std::string **getDescription** ()
- double **getPrice** ()
- Coleslaw (Menu ∗baseItem, std::string description, double price, int timeToprepare)

    Constrcutor for coleslaw custom addition.
- int **getTimeToPrepare** ()

Additional Inherited Members

3.28.1 Constructor & Destructor Documentation

3.28.1.1 Coleslaw()

```
Coleslaw::Coleslaw (
            Menu * baseItem,
            std::string description,
            double price,
            int timeToprepare )
```

Constrcutor for coleslaw custom addition.

Parameters

baseItem	
description	
price	
timeToprepare	

The documentation for this class was generated from the following files:

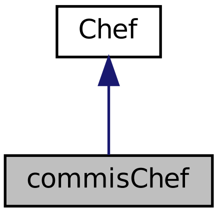
- Menu.h
- Menu.cpp

3.29 commisChef Class Reference

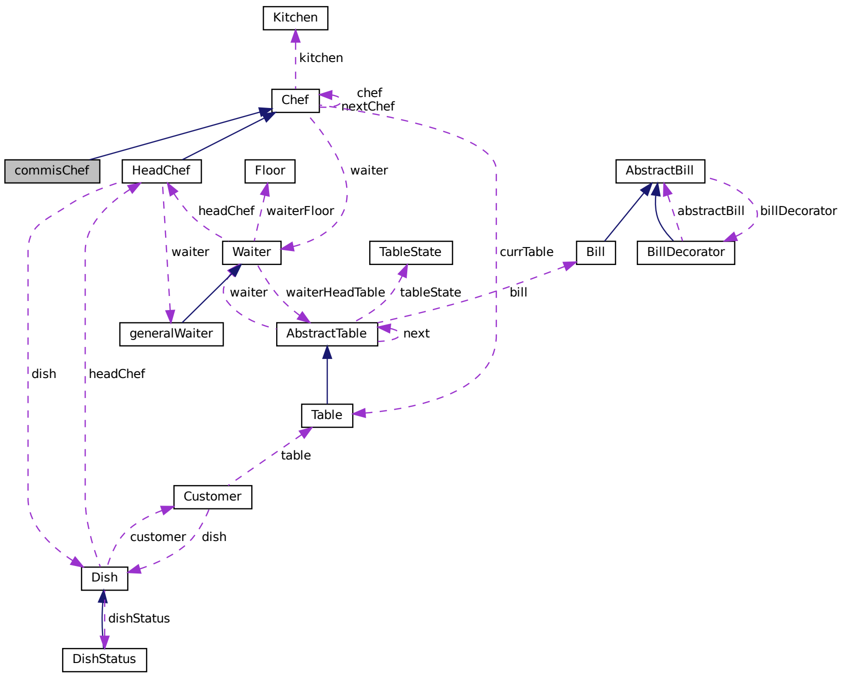
commisChef class commisChef is responsible for making dishes given to them by their HeadChef once a given a dish a commisChef

`#include <Chef.h>`

Inheritance diagram for commisChef:



Collaboration diagram for commisChef:



Public Member Functions

- commisChef (HeadChef ∗headChef)

    Construct a new commisChef object takes a HeadChef object as a parameter to set the headChef of the commisChef as the passed in HeadChef.
- void PrepareDish (Dish ∗dish)

    Have a commisChef start preparing a dish assign a dish to commisChef who will be the one preparing it.
- void Notify ()

    Notify the HeadChef that the dish is complete and ready for delivery Calls HeadChef's Notify function.

Additional Inherited Members

3.29.1 Detailed Description

commisChef class commisChef is responsible for making dishes given to them by their HeadChef once a given a dish a commisChef

3.29.2 Constructor & Destructor Documentation

3.29.2.1 commisChef()

```
commisChef::commisChef (
            HeadChef * headChef )
```

Construct a new commisChef object takes a HeadChef object as a parameter to set the headChef of the commisChef as the passed in HeadChef.

Parameters

headChef	

3.29.3 Member Function Documentation

3.29.3.1 PrepareDish()

```
void commisChef::PrepareDish (
            Dish * dish ) [virtual]
```

Have a commisChef start preparing a dish assign a dish to commisChef who will be the one preparing it.

Parameters

dish	

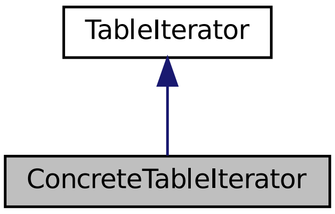
Implements Chef.

The documentation for this class was generated from the following files:

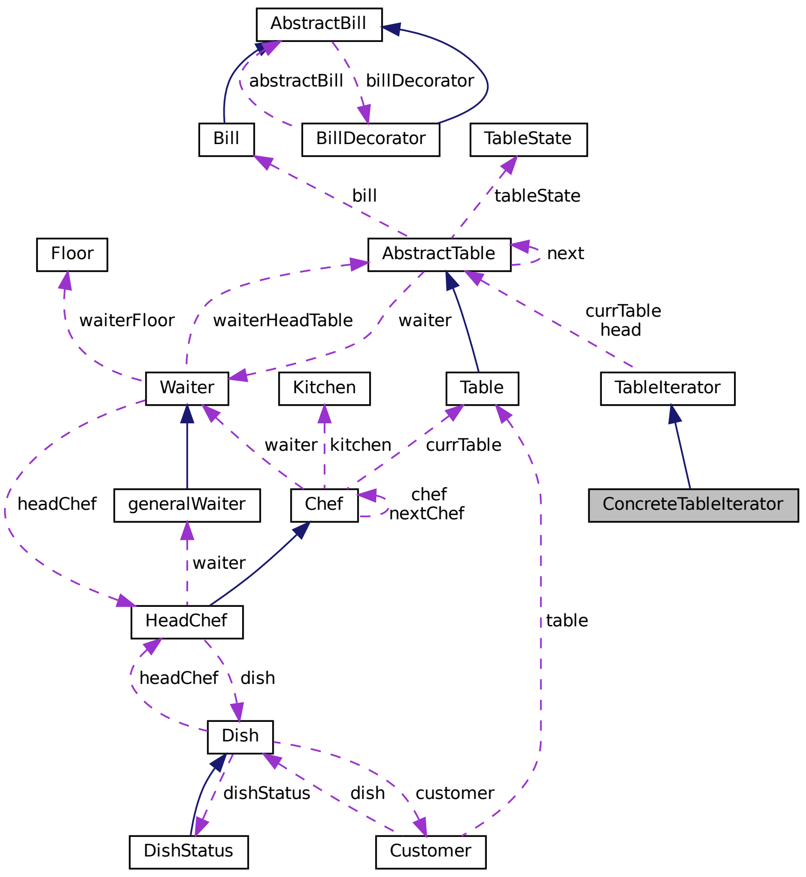
- Chef.h
- Chef.cpp

3.30 ConcreteTableIterator Class Reference

Inheritance diagram for ConcreteTableIterator:



Collaboration diagram for ConcreteTableIterator:



Public Member Functions

- AbstractTable ∗ **next** ()
- bool **hasNext** ()
- **ConcreteTableIterator** (AbstractTable ∗aTable)

Additional Inherited Members

The documentation for this class was generated from the following files:

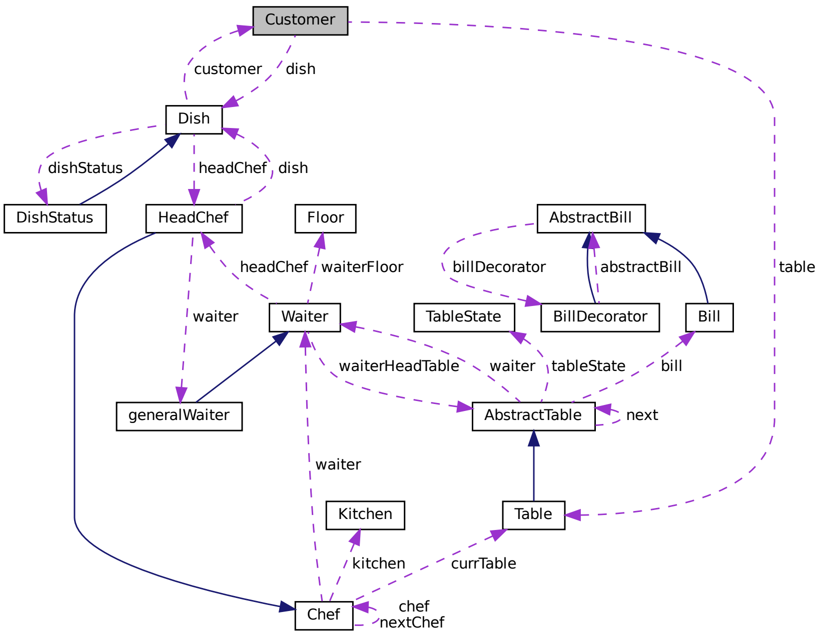
- TableIterator.h
- TableIterator.cpp

3.31 Customer Class Reference

Represents a restaurant customer.

```
#include <Customer.h>
```

Collaboration diagram for Customer:



Public Member Functions

- Customer (std::string customerName, int tableNum, Table ∗table)

  Construct a new Customer:: Customer object.
- ∼Customer ()

  Destroy the Customer:: Customer object.
- void pay (PaymentStrategy ∗aMethodOfPayment)

  Method gets called when customer is ready to pay need to choose method of payment (strategy design pattern)
- void tip ()

  allows customer to add a tip to the Bill customer chooses how much to tip
- void **customer** ()
- void checkOrder (Dish ∗order)

  sets customer mood according to how long it took for their dish to be prepared
- void setMood (std::string cstmrMood)

  Sets the customer mood.
- std::string getMood ()

  Returns the customers mood.
- void leaveRestaurant (Bill ∗bill)

  Method is called when the customer is ready to leave the restaurant acts as the constructor (conditional)
- void makeComplaint (Manager ∗manager)

gets called when customer is not happy with her waiting period state of the food sends the complaint to the manager customer can still make a complaint even when the manager is not visiting the table

- Bill ∗ getBill ()

  Returns bill associated with customer.
- Tab ∗ createTab ()

  Creates a tab for a customer.
- void setTab (Tab ∗table)

  Sets a tab for a customer.
- Dish ∗ placeOrder ()

  Places an order.
- void setTableNum (int table)

  Sets table number of customer.
- int getTableNum ()

  Returns table number in which customer is seated.
- std::string getName ()

  Returns customer name.
- void accept (Visitor ∗visitor)

  Accepts visitor to table.
- void assignCustomerTable (AbstractTable ∗customerTable)

  Assigns customer to table.
- std::string complimentWaiter ()

  User input to complement waiter.
- void setReadyToOrderStatus (bool readyToOrderStatus)

  Sets the customer status.
- void setReadyToLeaveStatus (bool readyToLeaveStatus)

  Sets the customer status.
- void setReadyToPayStatus (bool readyToPayStatus)

  Sets the customer status.

Public Attributes

- Dish ∗ **dish**
- Table ∗ **table**

3.31.1 Detailed Description

Represents a restaurant customer.

3.31.2 Constructor & Destructor Documentation

3.31.2.1 Customer()

```
Customer::Customer (
              std::string customerName,
              int tableNum,
              Table * table )
```

Construct a new Customer:: Customer object.

Parameters

customerName	
tableNum	
table	

3.31.3 Member Function Documentation

3.31.3.1 accept()

```
void Customer::accept (
            Visitor * visitor )
```

Accepts visitor to table.

Parameters

visitor	

3.31.3.2 assignCustomerTable()

```
void Customer::assignCustomerTable (
            AbstractTable * customerTable )
```

Assigns customer to table.

Parameters

customerTable	

3.31.3.3 checkOrder()

```
void Customer::checkOrder (
            Dish * order )
```

sets customer mood according to how long it took for their dish to be prepared

Parameters

order	

3.31.3.4 complimentWaiter()

```
std::string Customer::complimentWaiter ( )
```

User input to complement waiter.

Returns

std::string

3.31.3.5 createTab()

```
Tab * Customer::createTab ( )
```

Creates a tab for a customer.

Returns

Tab*

3.31.3.6 getBill()

```
Bill * Customer::getBill ( )
```

Returns bill associated with customer.

Returns

Bill*

3.31.3.7 getMood()

```
std::string Customer::getMood ( )
```

Returns the customers mood.

Returns

std::string

3.31.3.8 getName()

```
std::string Customer::getName ( )
```

Returns customer name.

Returns

std::string

3.31.3.9 getTableNum()

```
int Customer::getTableNum ( )
```

Returns table number in which customer is seated.

Returns

int

3.31.3.10 leaveRestaurant()

```
void Customer::leaveRestaurant (
            Bill * bill )
```

Method is called when the customer is ready to leave the restaurant acts as the constructor (conditional)

Parameters

bill	

3.31.3.11 pay()

```
void Customer::pay (
            PaymentStrategy * aMethodOfPayment )
```

Method gets called when customer is ready to pay need to choose method of payment (strategy design pattern)

Parameters

aMethodOfPayment	

3.31.3.12 setMood()

```
void Customer::setMood (
            std::string cstmrMood )
```

Sets the customer mood.

Parameters

cstmrMood	

3.31.3.13 setReadyToLeaveStatus()

```
void Customer::setReadyToLeaveStatus (
            bool readyToLeaveStatus )
```

Sets the customer status.

Parameters

readyToPayStatus	

3.31.3.14 setReadyToOrderStatus()

```
void Customer::setReadyToOrderStatus (
            bool readyToOrderStatus )
```

Sets the customer status.

Parameters

readyToPayStatus	

3.31.3.15 setReadyToPayStatus()

```
void Customer::setReadyToPayStatus (
            bool readyToPayStatus )
```

Sets the customer status.

Parameters

readyToPayStatus	

3.31.3.16 setTab()

```
void Customer::setTab (
             Tab * tab )
```

Sets a tab for a customer.

Parameters

tab	

3.31.3.17 setTableNum()

```
void Customer::setTableNum (
             int table )
```

Sets table number of customer.

Parameters

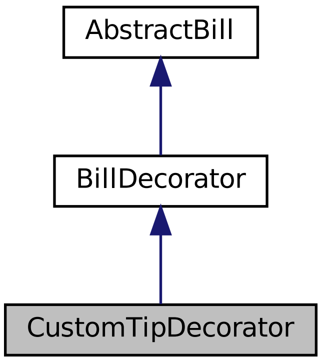
table	

The documentation for this class was generated from the following files:

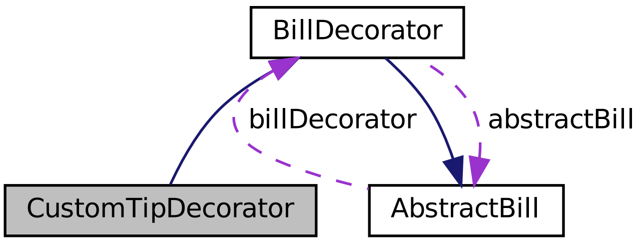
- Customer.h
- Customer.cpp

3.32 CustomTipDecorator Class Reference

Inheritance diagram for CustomTipDecorator:



Collaboration diagram for CustomTipDecorator:



Public Member Functions

- **CustomTipDecorator** (Bill ∗bill, double tip)
- double **getTotalCost** ()

Additional Inherited Members

The documentation for this class was generated from the following files:

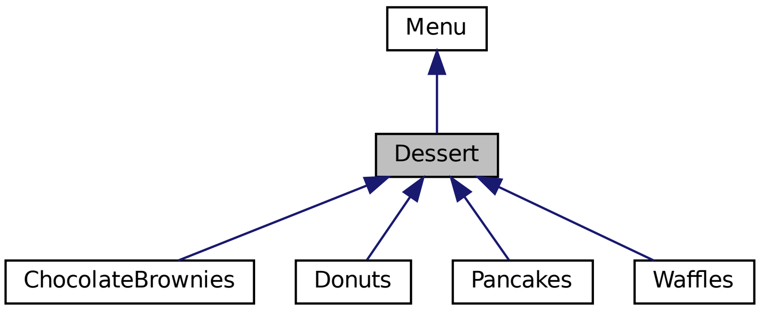
- Bill.h
- Bill.cpp

3.33 Dessert Class Reference

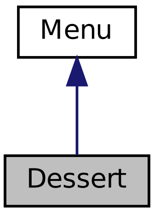
Desserts base class Desserts are waffle, chocolate brownies, donuts and pancakes Desserts will all take 3 seconds to prepare.

```
#include <Menu.h>
```

Inheritance diagram for Dessert:



Collaboration diagram for Dessert:



Additional Inherited Members

3.33.1 Detailed Description

Desserts base class Desserts are waffle, chocolate brownies, donuts and pancakes Desserts will all take 3 seconds to prepare.

The documentation for this class was generated from the following file:

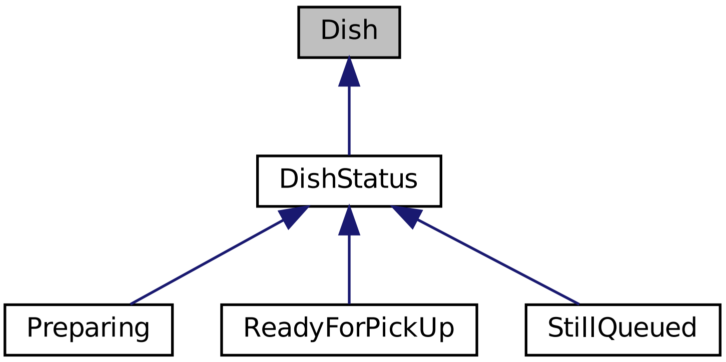
- Menu.h

3.34 Dish Class Reference

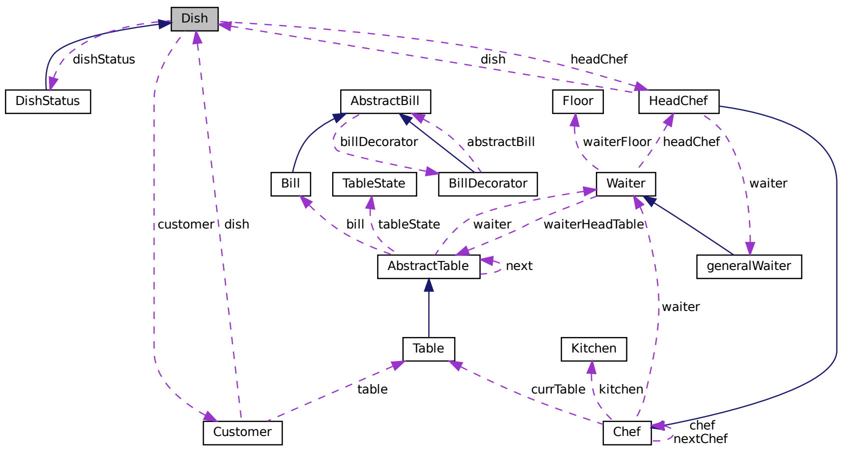
Dish class definition each Dish consists of multiple menu objects as well as the customer's name, their table and the state of the dish once it is being prepared.

```
#include <Dish.h>
```

Inheritance diagram for Dish:



Collaboration diagram for Dish:



Public Member Functions

- Dish ()

  Default Constructor for Dish Class All attributes set to null, empty or 0.
- Dish (std::string customerName, int customerTable)

Constructor for Dish class that takes in arguments Corresponding attributes are initialized to passed in arguments remaining attributes are initialized by createDish function call.

- void createDish ()

  Initializes Dish class's Menu objects randomly initializes the Menu attributes by using randomly generated numbers not all Menu objects may be initialized.
- void **dishState** ()
- DishStatus ∗ getDishStatus ()

  Returns the current state of the dish.
- void **change** ()
- void setDishStatus (DishStatus ∗state)

  set the status of the dish sets the current status of the dish to the passed in parameter
- std::string getCustomerName ()

  Returns the dish's customer name Returns the name of the customer who ordered the dish.
- int getCustomerTable ()

  Returns the customer's table number Returns the table number of the customer who ordered the dish.

Public Attributes

- Customer ∗ **customer**
- DishStatus ∗ **dishStatus**
- HeadChef ∗ **headChef**

3.34.1 Detailed Description

Dish class definition each Dish consists of multiple menu objects as well as the customer's name, their table and the state of the dish once it is being prepared.

3.34.2 Constructor & Destructor Documentation

3.34.2.1 Dish()

```
Dish::Dish (
             std::string customerName,
             int customerTable )
```

Constructor for Dish class that takes in arguments Corresponding attributes are initialized to passed in arguments remaining attributes are initialized by createDish function call.

Parameters

customerName	
customerTable	

3.34.3 Member Function Documentation

3.34.3.1 getCustomerName()

```
std::string Dish::getCustomerName ( )
```

Returns the dish's customer name Returns the name of the customer who ordered the dish.

Returns

std::string

3.34.3.2 getCustomerTable()

```
int Dish::getCustomerTable ( )
```

Returns the customer's table number Returns the table number of the customer who ordered the dish.

Returns

int

3.34.3.3 getDishStatus()

```
DishStatus * Dish::getDishStatus ( )
```

Returns the current state of the dish.

Returns

DishStatus*

3.34.3.4 setDishStatus()

```
void Dish::setDishStatus (
             DishStatus * state )
```

set the status of the dish sets the current status of the dish to the passed in parameter

Parameters

state	

The documentation for this class was generated from the following files:

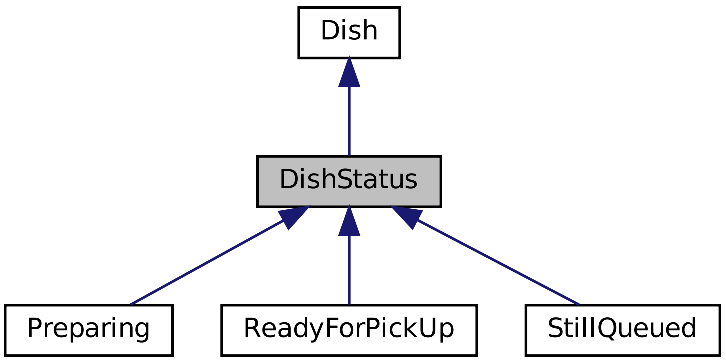
- Dish.h
- Dish.cpp

3.35 DishStatus Class Reference

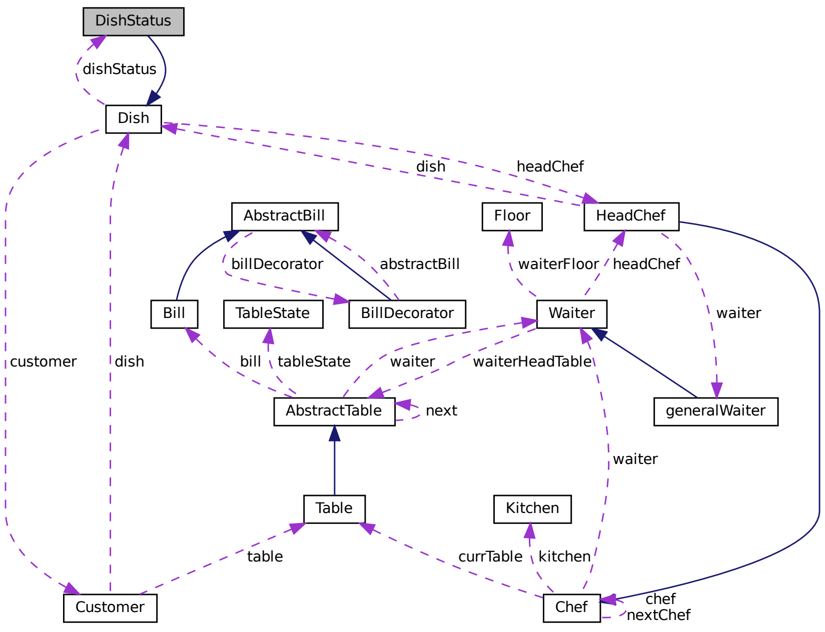
DishStatus base class, inherits from Dish There are 3 different DishStatus classes: Preparing, ReadyForPickUp and StillQueued each DishStatus updates a dish's status to their corresponding class.

```
#include <Dish.h>
```

Inheritance diagram for DishStatus:



Collaboration diagram for DishStatus:



Public Member Functions

- DishStatus ()

  Default constructor for DishStatus base class.
- virtual void **updateDishStatus** ()=0
- void **DishState** ()
- virtual std::string **getStatus** ()=0

Protected Attributes

- std::string **status**

Additional Inherited Members

3.35.1 Detailed Description

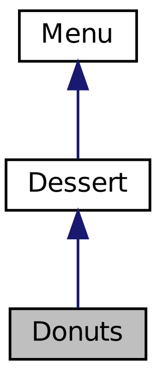
DishStatus base class, inherits from Dish There are 3 different DishStatus classes: Preparing, ReadyForPickUp and StillQueued each DishStatus updates a dish's status to their corresponding class.

The documentation for this class was generated from the following files:

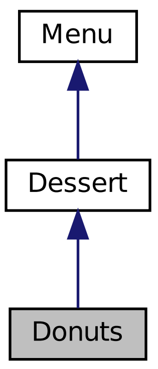
- Dish.h
- Dish.cpp

3.36 Donuts Class Reference

Inheritance diagram for Donuts:



Collaboration diagram for Donuts:



Public Member Functions

- Donuts ()
  Constrcutor for donuts dessert.

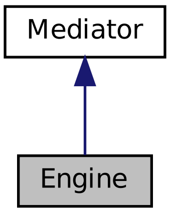
Additional Inherited Members

The documentation for this class was generated from the following files:

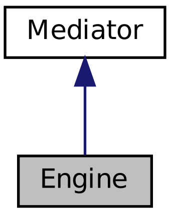
- Menu.h
- Menu.cpp

3.37 Engine Class Reference

Inheritance diagram for Engine:



Collaboration diagram for Engine:



Public Member Functions

- void **update** ()

The documentation for this class was generated from the following files:

- Engine.h
- Engine.cpp

3.38 Facade Class Reference

acts as main interface for system/interface

```
#include <Facade.h>
```

Public Member Functions

- Facade (Floor ∗f, Engine ∗e)

  Construct a new Facade object.
- void Decrement ()

  notfy all related timers to decrement
- void displayMenu ()

  show interface for users
- void createWaiter ()

  Create a Waiter object (template code)
- Facade ∗ GetInstance (Floor ∗f, Engine ∗e)

  Get the Instance object or create if it doesn't exist.
- Facade ()

  Construct a new Facade object.
- void operation ()

  (template code)
- Facade (std::string)

  Construct a new Facade object (template code)

3.38.1 Detailed Description

acts as main interface for system/interface

3.38.2 Constructor & Destructor Documentation

3.38.2.1 Facade()

```
Facade::Facade (
            Floor * f,
            Engine * e )  [inline]
```

Construct a new Facade object.

Parameters

f	
e	

3.38.3 Member Function Documentation

3.38.3.1 GetInstance()

```
Facade* Facade::GetInstance (
            Floor * f,
            Engine * e )  [inline]
```

Get the Instance object or create if it doesn't exist.

Parameters

f	
e	

Returns

Facade*

The documentation for this class was generated from the following files:

- Facade.h
- Facade.cpp

3.39 Floor Class Reference

Floor is responsible for managing the tables and waiters.

`#include <Floor.h>`

Public Member Functions

- AbstractTable * constructTable ()

  Construct a new Floor:: Floor object.
- AbstractTable * destructTable ()

  Function to destruct a table.
- void Decrement ()

  Function to decrement the timer.
- AbstractTable * **getHeadTable** ()
- void constructWaiter (std::string, HeadChef *hc)

  Function to construct a waiter.
- void printWaiters ()

  Function to print the waiters.
- Tab * getTab (std::string aName)

  Function to get the tab.
- Manager * getManager ()

  Function to get the manager.
- void setManager (Manager *aManager)

  Function to set the manager.
- void **getManagerComplaints** ()
- void mergeTables (int table1, int table2)

  Function to merge tables.
- void splitTables (TableGroup *table)

  Function to split tables This function will only split tablegroup and not normal tables, It takes a tablegroup and splits it into its individual tables.

3.39.1 Detailed Description

Floor is responsible for managing the tables and waiters.

3.39.2 Member Function Documentation

3.39.2.1 splitTables()

```
void Floor::splitTables (
             TableGroup * table )
```

Function to split tables This function will only split tablegroup and not normal tables, It takes a tablegroup and splits it into its individual tables.

Parameters

table	

The documentation for this class was generated from the following files:

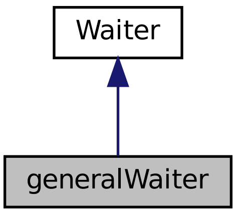
- Floor.h
- Floor.cpp

3.40 generalWaiter Class Reference

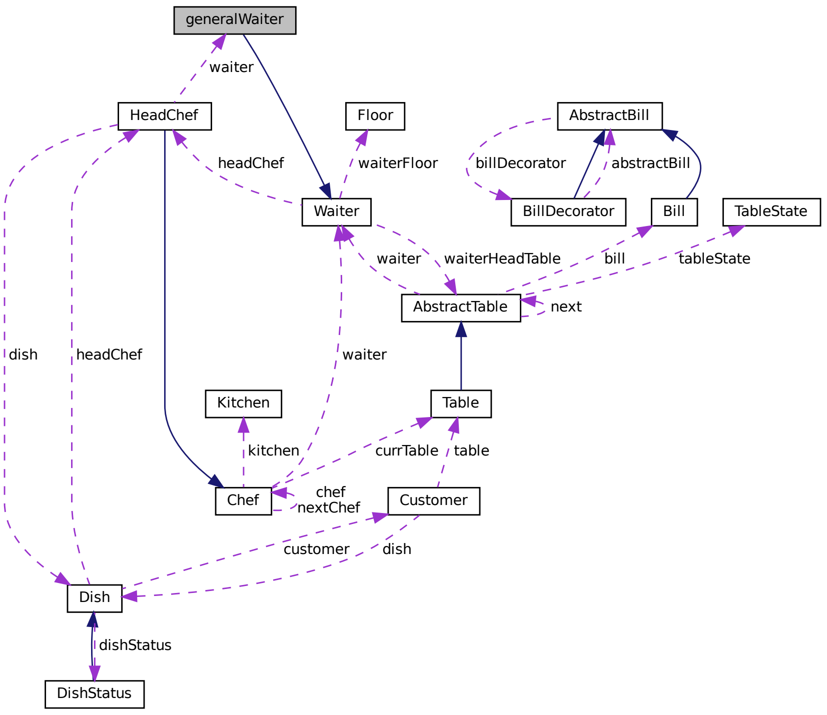
GeneralWaiter is responsible for serving customers.

```
#include <Waiter.h>
```

Inheritance diagram for generalWaiter:



Collaboration diagram for generalWaiter:



Public Member Functions

- **generalWaiter** (std::string basicString, HeadChef ∗hc, Floor ∗pFloor)
- void **getAllocatedAtable** (Table ∗table)
- void **performTask** ()
- virtual void **visitTable** (AbstractTable ∗table)
- void addToTab (std::string name, double amount)

  Adds the total of the dish to the customers tab.
- void payTab (std::string name, double amount)

  Deduct from the total of a customers tab.
- Tab ∗ getTab (std::string name)

  Returns a reference to a customers tab.
- void **decrementTimer** ()
- void receiveCompliment (const std::string &compliment)

  Constructor for the MaitreD class.

Additional Inherited Members

3.40.1 Detailed Description

GeneralWaiter is responsible for serving customers.

3.40.2 Member Function Documentation

3.40.2.1 addToTab()

```
void generalWaiter::addToTab (
            std::string customerName,
            double amount )
```

Adds the total of the dish to the customers tab.

Parameters

customerName	
amount	

3.40.2.2 getTab()

```
Tab * generalWaiter::getTab (
            std::string customerName )
```

Returns a reference to a customers tab.

Parameters

customerName	

Returns

Tab∗

3.40.2.3 payTab()

```
void generalWaiter::payTab (
            std::string customerName,
            double amount )
```

Deduct from the total of a customers tab.

Parameters

customerName	
amount	

The documentation for this class was generated from the following files:

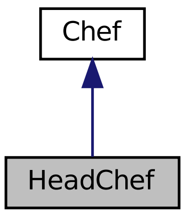
- Waiter.h
- Waiter.cpp

3.41 HeadChef Class Reference

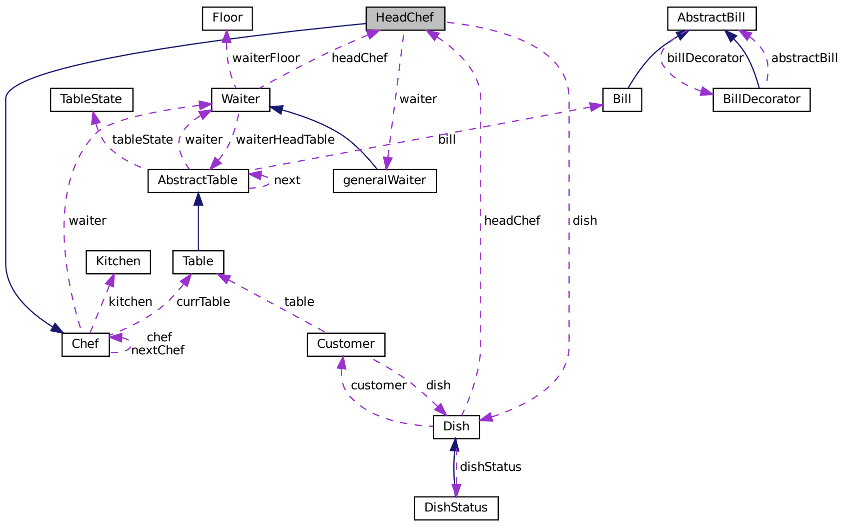
HeadChef class HeadChef delegates making of dishes to commisChef class HeadChef can also add and remove commisChefs as necessary commisChefs given dishes are moved from a freeChef to a busyChefs queue once a dish is complete commisChef is moved back to freeChefs.

```
#include <Chef.h>
```

Inheritance diagram for HeadChef:



Collaboration diagram for HeadChef:



Public Member Functions

- HeadChef ()

  Construct a new HeadChef object Set role to "HeadChef" nextChef and currTable set to NULL.
- void AddDish (Dish ∗d)

  add a dish to the dishQueue enqueues a dish object to HeadChef's dishQueue
- void PrepareDish (Dish ∗dish)

  gives a dish to a commisChef to prepare dequeues a dish object from HeadChef's dishQueue and assigns a commisChef to start preparing it
- void addChef ()

  add a chef to the kitchen adds a commisChef object to HeadChef's freeChefs commisChef queue
- void removeChef ()

  remove a chef from the kitchen remove a commisChef object from HeadChef's freeChefs commisChef queue
- void Notify (generalWaiter ∗waiter)

  notify a waiter an order is ready to be delivered call the passed in generalWaiter object's deliverOrder object to deliver a finished order to the appropriate table
- void Attach (generalWaiter ∗waiter)

  add a new generalWaiter attach a new generalWaiter object to the HeadChef's generalWaiter queue
- void Detach ()

  remove a generalWaiter remove a generalWaiter object from HeadChef's generalWaiter queue

Public Attributes

- generalWaiter ∗ **waiter**
- Dish ∗ **dish**

Additional Inherited Members

3.41.1 Detailed Description

HeadChef class HeadChef delegates making of dishes to commisChef class HeadChef can also add and remove commisChefs as necessary commisChefs given dishes are moved from a freeChef to a busyChefs queue once a dish is complete commisChef is moved back to freeChefs.

3.41.2 Member Function Documentation

3.41.2.1 AddDish()

```
void HeadChef::AddDish (
            Dish ∗ d )
```

add a dish to the dishQueue enqueues a dish object to HeadChef's dishQueue

Parameters

d	

3.41.2.2 Attach()

```
void HeadChef::Attach (
            generalWaiter * waiter )
```

add a new generalWaiter attach a new generalWaiter object to the HeadChef's generalWaiter queue

Parameters

waiter	

3.41.2.3 Notify()

```
void HeadChef::Notify (
            generalWaiter * waiter )
```

notify a waiter an order is ready to be delivered call the passed in generalWaiter object's deliverOrder object to deliver a finished order to the appropriate table

Parameters

waiter	

3.41.2.4 PrepareDish()

```
void HeadChef::PrepareDish (
            Dish * dish )  [virtual]
```

gives a dish to a commisChef to prepare dequeues a dish object from HeadChef's dishQueue and assigns a commisChef to start preparing it

Parameters

dish	

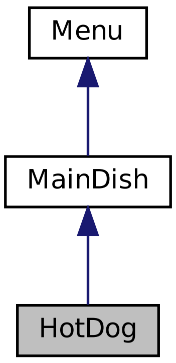
Implements Chef.

The documentation for this class was generated from the following files:

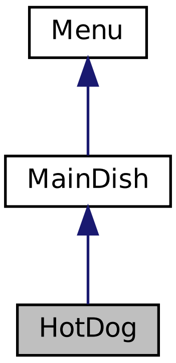
- Chef.h
- Chef.cpp

3.42 HotDog Class Reference

Inheritance diagram for HotDog:



Collaboration diagram for HotDog:



Public Member Functions

- HotDog ()

  Constrcutor for hot dog main dish.

Additional Inherited Members

The documentation for this class was generated from the following files:

- Menu.h
- Menu.cpp

3.43 Kitchen Class Reference

Public Member Functions

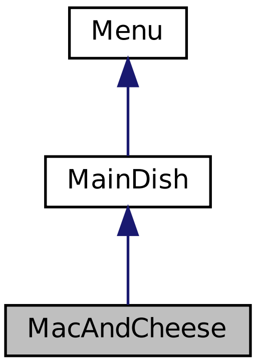
- void **receiveOrder** (Waiter ∗aWaiter)

The documentation for this class was generated from the following files:

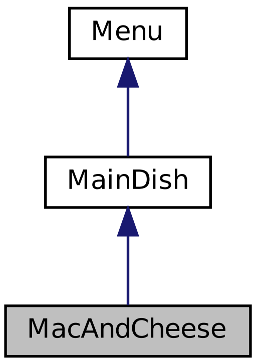
- Kitchen.h
- Kitchen.cpp

3.44 MacAndCheese Class Reference

Inheritance diagram for MacAndCheese:



Collaboration diagram for MacAndCheese:



Public Member Functions

- MacAndCheese ()

  Constrcutor for mac and cheese main dish.

Additional Inherited Members

The documentation for this class was generated from the following files:

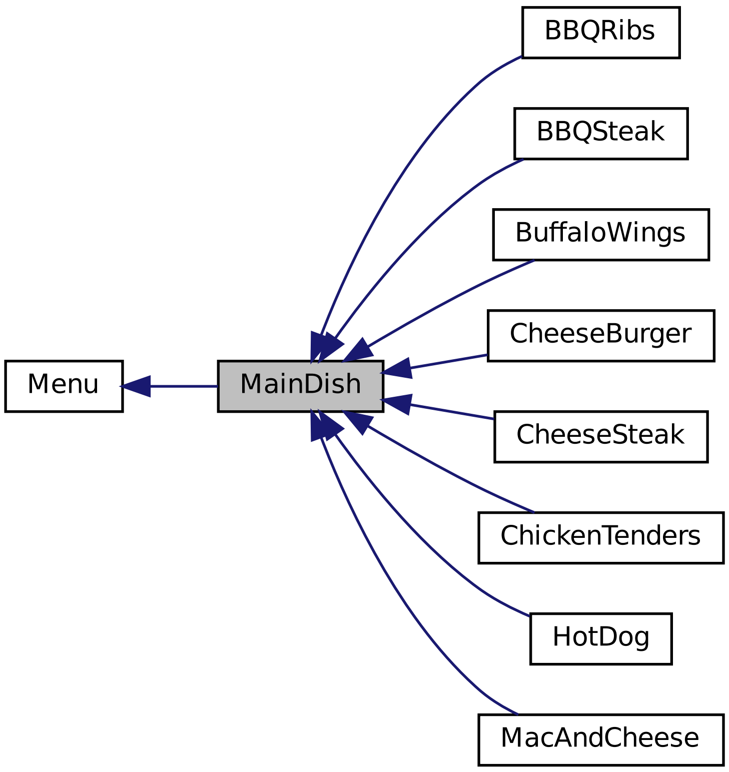
- Menu.h
- Menu.cpp

3.45 MainDish Class Reference

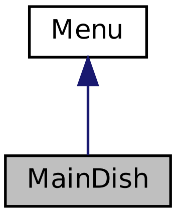
Main dishes base class Main dishes are cheeseburgers, hot dogs, mac and cheese, bbq ribs, chicken tenders, cheesesteak, bbq steak and buffalo wings Main dishes will all take 10 seconds to prepare.

```
#include <Menu.h>
```

Inheritance diagram for MainDish:



Collaboration diagram for MainDish:



Additional Inherited Members

3.45.1 Detailed Description

Main dishes base class Main dishes are cheeseburgers, hot dogs, mac and cheese, bbq ribs, chicken tenders, cheesesteak, bbq steak and buffalo wings Main dishes will all take 10 seconds to prepare.

The documentation for this class was generated from the following file:

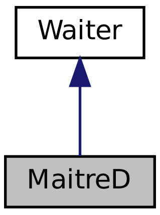
- Menu.h

3.46 MaitreD Class Reference

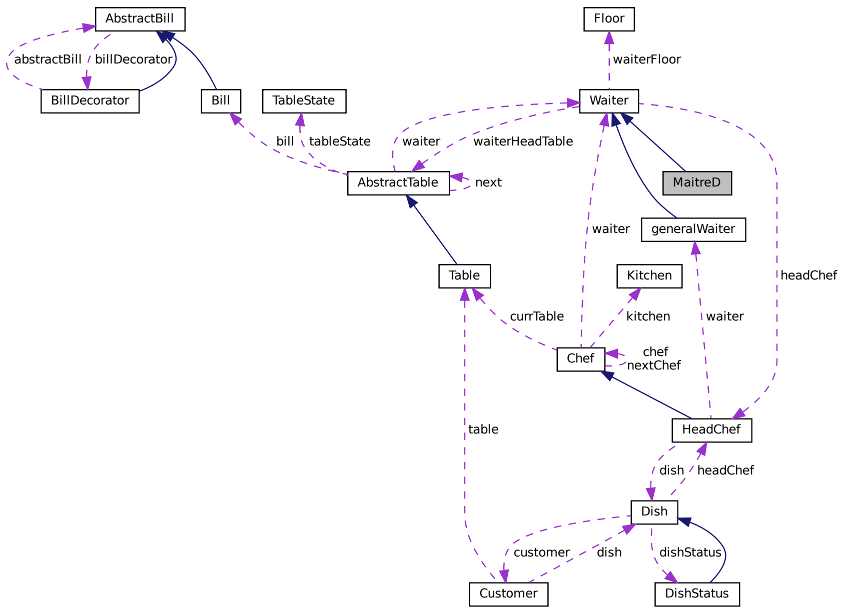
MaitreD is responsible for allocating tables to customers.

```
#include <Waiter.h>
```

Inheritance diagram for MaitreD:



Collaboration diagram for MaitreD:



Public Member Functions

- void performTask ()

    Constructor for the MaitreD class.
- void allocateTable (std::vector< Customer ∗ >)

    Allocate an available table to 1 or more customers.
- void mergeTables (int table1, int table2)

    Merge 2 tables together.
- void splitTables (TableGroup ∗tableGroup)

    Split a table into 2.

Additional Inherited Members

3.46.1 Detailed Description

MaitreD is responsible for allocating tables to customers.

3.46.2 Member Function Documentation

3.46.2.1 allocateTable()

```
void MaitreD::allocateTable (
            std::vector< Customer * > customers )
```

Allocate an available table to 1 or more customers.

Parameters

customers	

3.46.2.2 mergeTables()

```
void MaitreD::mergeTables (
            int table1,
            int table2 )
```

Merge 2 tables together.

Parameters

table1	
table2	

3.46.2.3 splitTables()

```
void MaitreD::splitTables (
            TableGroup * table )
```

Split a table into 2.

Parameters

table	

The documentation for this class was generated from the following files:

- Waiter.h
- Waiter.cpp

3.47 Manager Class Reference

Public Member Functions

- virtual void visitTable (Table ∗table)

  Manager visits the table and checks the customer's mood.
- std::vector< std::string > getComplaints ()

  Returns the complaints made by customers.
- void handleComplaint (const std::string &complaint)

  Handles the complaint made by the customer.

3.47.1 Member Function Documentation

3.47.1.1 getComplaints()

```
std::vector< std::string > Manager::getComplaints ( )
```

Returns the complaints made by customers.

Returns

std::vector<std::string>

3.47.1.2 handleComplaint()

```
void Manager::handleComplaint (
            const std::string & complaint )
```

Handles the complaint made by the customer.

Parameters

complaint	

3.47.1.3 visitTable()

```
void Manager::visitTable (
            Table * table )  [virtual]
```

Manager visits the table and checks the customer's mood.

Parameters

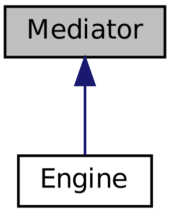
table	

The documentation for this class was generated from the following files:

- Manager.h
- Manager.cpp

3.48 Mediator Class Reference

Inheritance diagram for Mediator:



Public Member Functions

- void **setFloor** (Floor ∗f)
- void **notify** ()

The documentation for this class was generated from the following files:

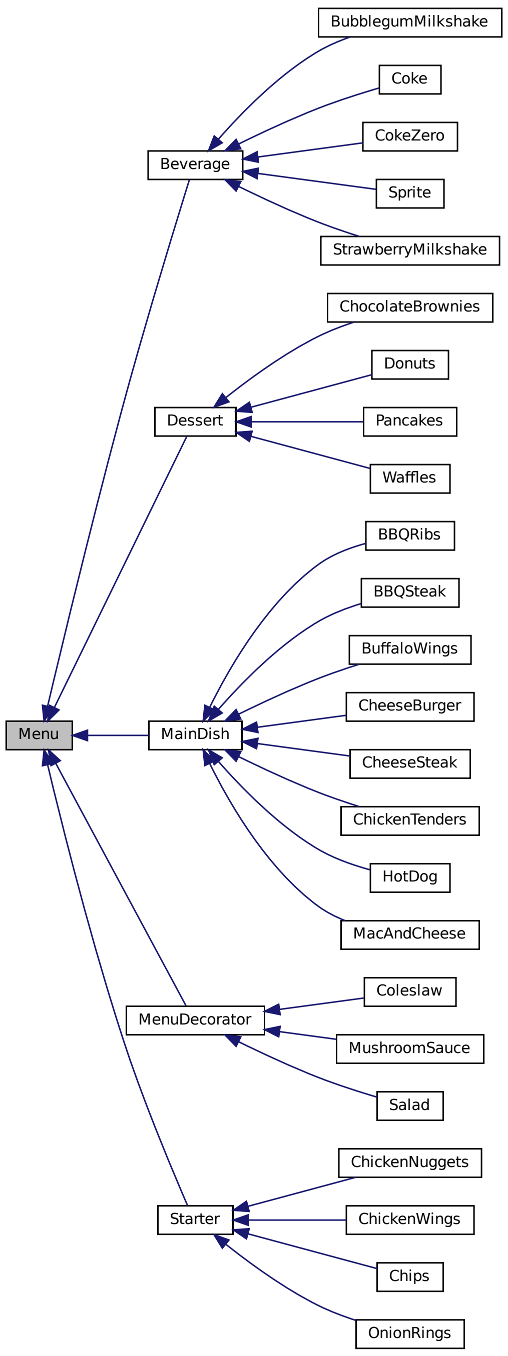
- Engine.h
- Engine.cpp

3.49 Menu Class Reference

Menu base class.

```
#include <Menu.h>
```

Inheritance diagram for Menu:



Public Member Functions

- std::string getDescription ()

  Construct a new Menu:: Menu object.
- double getPrice ()

  Construct a new Menu:: Menu object.
- int getTimeToPrepare ()

  Returns preparation time for the menu object.

Protected Attributes

- std::string **description**
- int **timeToPrepare**
- double **price**

3.49.1 Detailed Description

Menu base class.

The documentation for this class was generated from the following files:

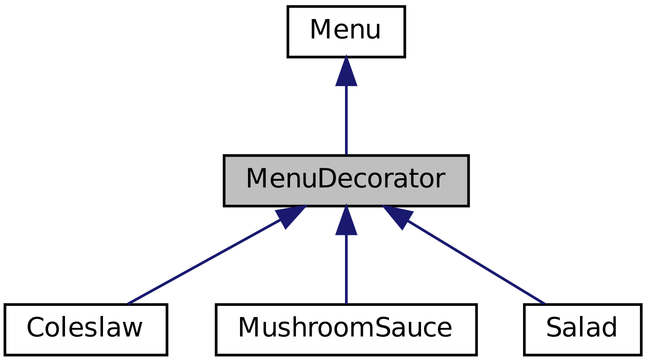
- Menu.h
- Menu.cpp

3.50 MenuDecorator Class Reference

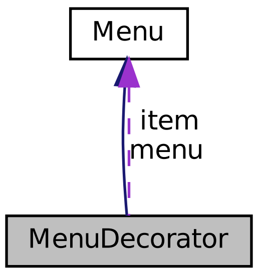
MenuDecorator class.

```
#include <Menu.h>
```

Inheritance diagram for MenuDecorator:



Collaboration diagram for MenuDecorator:



Public Member Functions

- std::string **getDescription** ()
- double **getPrice** ()
- MenuDecorator (Menu ∗baseItem)

  Sets the base menu item that the customer wants to add custom additions to.
- int **getTimeToPrepare** ()

Public Attributes

- Menu ∗ **menu**

Protected Attributes

- Menu ∗ **item**

3.50.1 Detailed Description

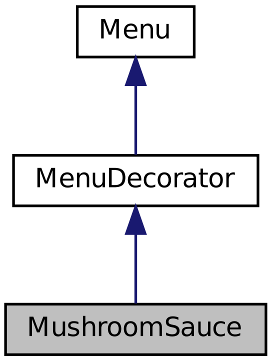
MenuDecorator class.

The documentation for this class was generated from the following files:

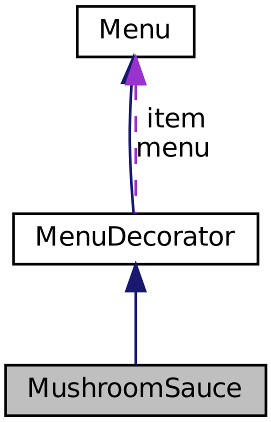
- Menu.h
- Menu.cpp

3.51 MushroomSauce Class Reference

Inheritance diagram for MushroomSauce:



Collaboration diagram for MushroomSauce:



Public Member Functions

- std::string **getDescription** ()
- double **getPrice** ()
- MushroomSauce (Menu ∗baseItem, std::string description, double price, int timeToprepare)

  Constrcutor for mushroom sauce custom addition.
- int **getTimeToPrepare** ()

Additional Inherited Members

3.51.1 Constructor & Destructor Documentation

3.51.1.1 MushroomSauce()

```
MushroomSauce::MushroomSauce (
            Menu * baseItem,
            std::string description,
            double price,
            int timeToprepare )
```

Constrcutor for mushroom sauce custom addition.

Parameters

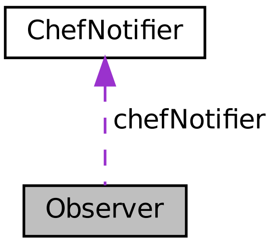
baseItem	
description	
price	
timeToprepare	

The documentation for this class was generated from the following files:

- Menu.h
- Menu.cpp

3.52 Observer Class Reference

Collaboration diagram for Observer:



Public Member Functions

- virtual void **DeliverOrder** ()=0

Public Attributes

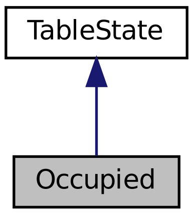
- ChefNotifier ∗ **chefNotifier**

The documentation for this class was generated from the following file:

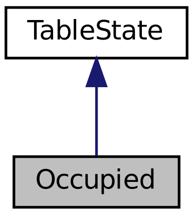
- Chef.h

3.53 Occupied Class Reference

Inheritance diagram for Occupied:



Collaboration diagram for Occupied:



Public Member Functions

- void handleState (AbstractTable ∗table)

  Occupied state handle, if there are no customers change from occupied to unoccupied.
- std::string getState ()

  Returns string which specifies table state.

3.53.1 Member Function Documentation

3.53.1.1 getState()

```
std::string Occupied::getState ( )  [virtual]
```

Returns string which specifies table state.

Returns

std::string

Implements TableState.

3.53.1.2 handleState()

```
void Occupied::handleState (
            AbstractTable * table )  [virtual]
```

Occupied state handle, if there are no customers change from occupied to unoccupied.

Parameters

table	

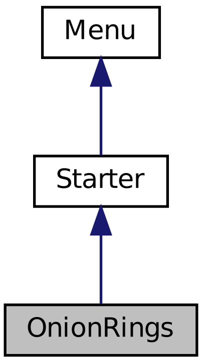
Implements TableState.

The documentation for this class was generated from the following files:

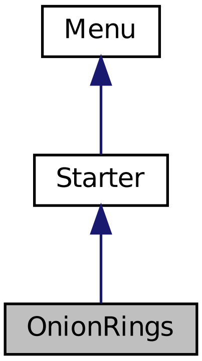
- Table.h
- Table.cpp

3.54 OnionRings Class Reference

Inheritance diagram for OnionRings:



Collaboration diagram for OnionRings:



Public Member Functions

- OnionRings ()

  Constrcutor for onion rings starter.

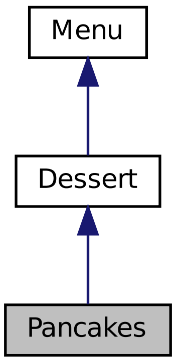
Additional Inherited Members

The documentation for this class was generated from the following files:

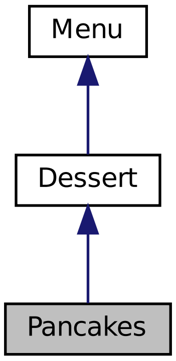
- Menu.h
- Menu.cpp

3.55 Pancakes Class Reference

Inheritance diagram for Pancakes:



Collaboration diagram for Pancakes:



Public Member Functions

- Pancakes ()

  Constrcutor for pancakes dessert.

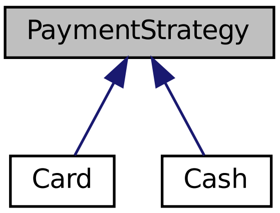
Additional Inherited Members

The documentation for this class was generated from the following files:

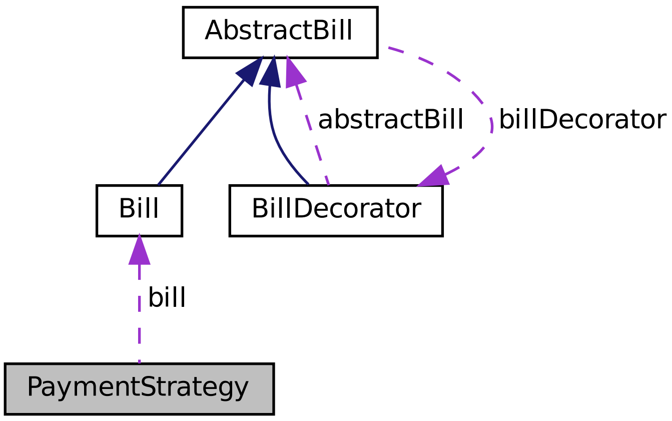
- Menu.h
- Menu.cpp

3.56 PaymentStrategy Class Reference

Inheritance diagram for PaymentStrategy:



Collaboration diagram for PaymentStrategy:



Public Member Functions

- void **paymentMethod** ()

Public Attributes

- Bill ∗ **bill**

The documentation for this class was generated from the following files:

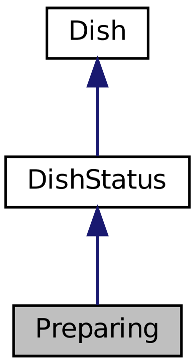
- Bill.h
- Bill.cpp

3.57 Preparing Class Reference

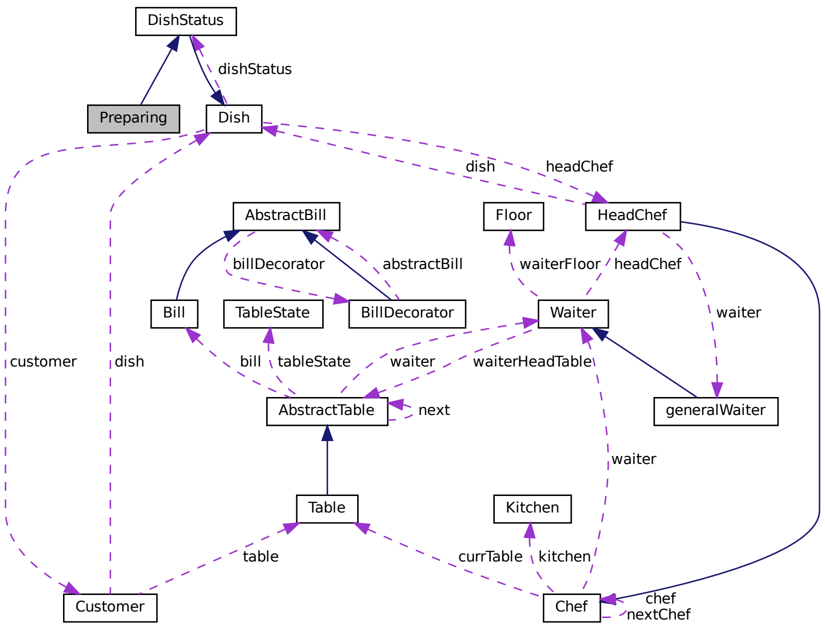
DishStatus Preparing class used to indicate when a dish is still being prepared.

```
#include <Dish.h>
```

Inheritance diagram for Preparing:



Collaboration diagram for Preparing:



Public Member Functions

- Preparing ()

  Default construct for DishStatus Preparing class sets the status attribute accordingly.
- void updateDishStatus ()

  Update the dish's current status Set the dish's status to the current DishStatus class.
- std::string getStatus ()

  Returns the current status of the dish.

Additional Inherited Members

3.57.1 Detailed Description

DishStatus Preparing class used to indicate when a dish is still being prepared.

3.57.2 Member Function Documentation

3.57.2.1 getStatus()

```
std::string Preparing::getStatus ( )  [virtual]
```

Returns the current status of the dish.

Returns

std::string

Implements DishStatus.

The documentation for this class was generated from the following files:

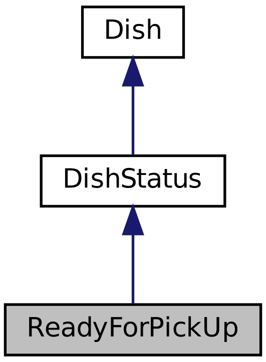
- Dish.h
- Dish.cpp

3.58 ReadyForPickUp Class Reference

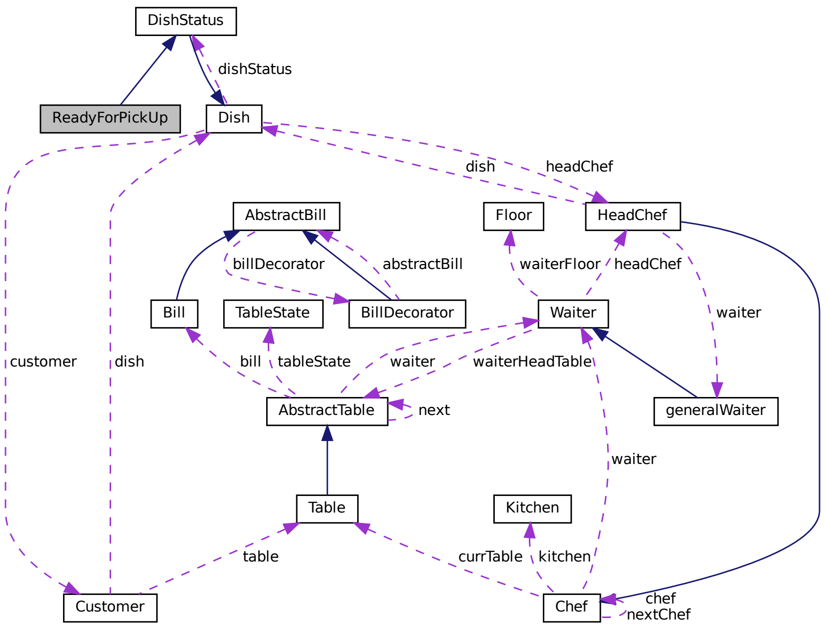
DishStatus ReadyForPickUp class used to indicate when a dish is ready to be picked up.

```
#include <Dish.h>
```

Inheritance diagram for ReadyForPickUp:



Collaboration diagram for ReadyForPickUp:



Public Member Functions

- ReadyForPickUp ()

  Default construct for DishStatus ReadyForPickUp class sets the status attribute accordingly.
- void updateDishStatus ()

  Update the dish's current status Set the dish's status to the current DishStatus class.
- std::string getStatus ()

  Returns the current status of the dish.

Additional Inherited Members

3.58.1 Detailed Description

DishStatus ReadyForPickUp class used to indicate when a dish is ready to be picked up.

3.58.2 Member Function Documentation

3.58.2.1 getStatus()

```
std::string ReadyForPickUp::getStatus ( )  [virtual]
```

Returns the current status of the dish.

Returns

std::string

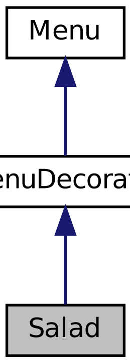
Implements DishStatus.

The documentation for this class was generated from the following files:

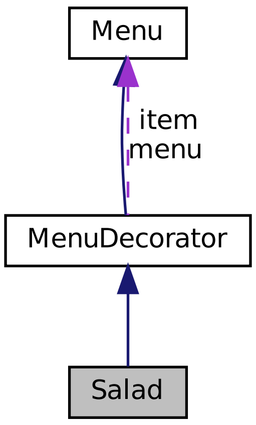
- Dish.h
- Dish.cpp

3.59 Salad Class Reference

Inheritance diagram for Salad:



Collaboration diagram for Salad:



Public Member Functions

- std::string **getDescription** ()
- double **getPrice** ()
- Salad (Menu ∗baseItem, std::string description, double price, int timeToprepare)

  Constrcutor for salad custom addition.
- int **getTimeToPrepare** ()

Additional Inherited Members

3.59.1 Constructor & Destructor Documentation

3.59.1.1 Salad()

```
Salad::Salad (
             Menu * baseItem,
             std::string description,
             double price,
             int timeToprepare )
```

Constrcutor for salad custom addition.

Parameters

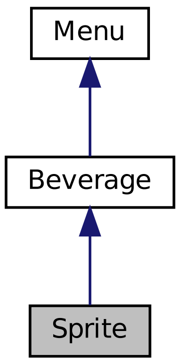
baseItem	
description	
price	
timeToprepare	

The documentation for this class was generated from the following files:

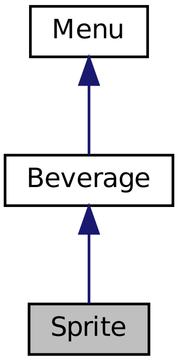
- Menu.h
- Menu.cpp

3.60 Sprite Class Reference

Inheritance diagram for Sprite:



Collaboration diagram for Sprite:



Public Member Functions

- Sprite ()

  Constrcutor for Sprite beverage.

Additional Inherited Members

The documentation for this class was generated from the following files:

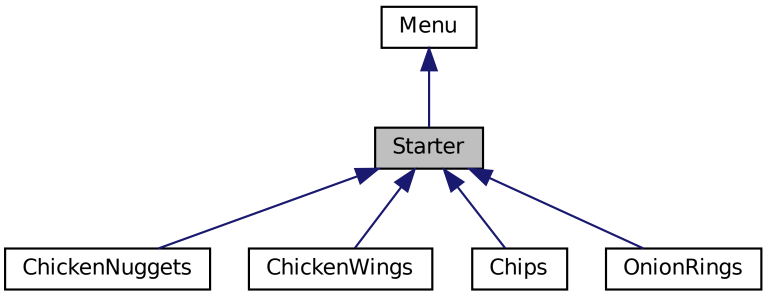
- Menu.h
- Menu.cpp

3.61 Starter Class Reference

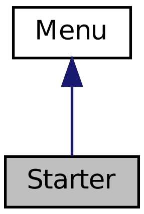
Starters base class Starters are onion rings, chicken wings and chicken nuggets Starters will all take 5 seconds to prepare.

```
#include <Menu.h>
```

Inheritance diagram for Starter:



Collaboration diagram for Starter:



Additional Inherited Members

3.61.1 Detailed Description

Starters base class Starters are onion rings, chicken wings and chicken nuggets Starters will all take 5 seconds to prepare.

The documentation for this class was generated from the following file:

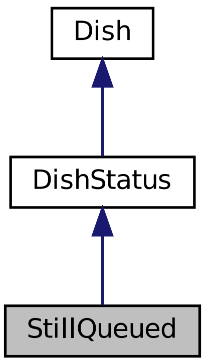
- Menu.h

3.62 StillQueued Class Reference

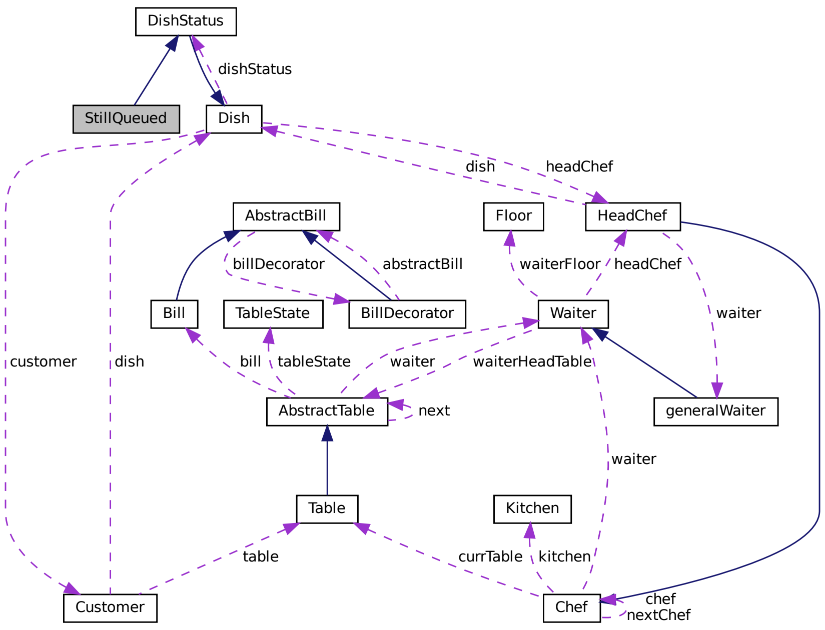
DishStatus StillQueued class used to indicate when a dish has yet to begin preparation.

```
#include <Dish.h>
```

Inheritance diagram for StillQueued:



Collaboration diagram for StillQueued:



Public Member Functions

- StillQueued ()

  Default construct for DishStatus StillQueued class sets the status attribute accordingly.
- void updateDishStatus ()

  Update the dish's current status Set the dish's status to the current DishStatus class.
- std::string getStatus ()

  Returns the current status of the dish.

Additional Inherited Members

3.62.1 Detailed Description

DishStatus StillQueued class used to indicate when a dish has yet to begin preparation.

3.62.2 Member Function Documentation

3.62.2.1 getStatus()

```
std::string StillQueued::getStatus ( )  [virtual]
```

Returns the current status of the dish.

Returns

std::string

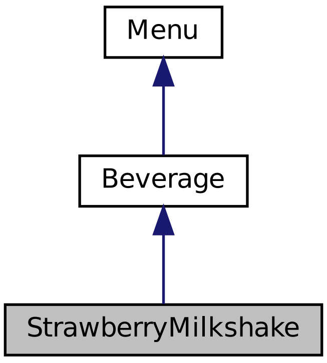
Implements DishStatus.

The documentation for this class was generated from the following files:

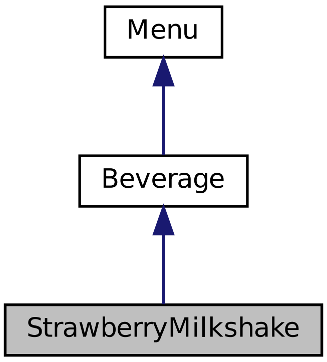
- Dish.h
- Dish.cpp

3.63 StrawberryMilkshake Class Reference

Inheritance diagram for StrawberryMilkshake:



Collaboration diagram for StrawberryMilkshake:



Public Member Functions

- StrawberryMilkshake ()

    Constrcutor for Strawberry milkshake beverage.

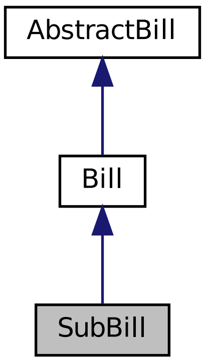
Additional Inherited Members

The documentation for this class was generated from the following files:

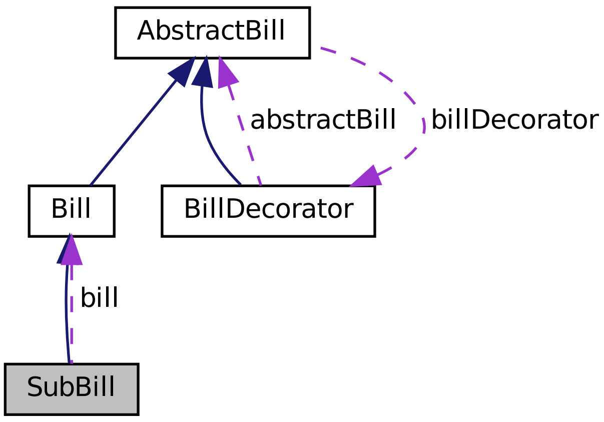
- Menu.h
- Menu.cpp

3.64 SubBill Class Reference

Inheritance diagram for SubBill:



Collaboration diagram for SubBill:



Public Member Functions

- void **paymentMethod** ()
- double **getTotalCost** ()
- void **addItem** (SubBill item)
- void **getSubBill** (std::string customerName)

Public Attributes

- Bill ∗ **bill**

The documentation for this class was generated from the following files:

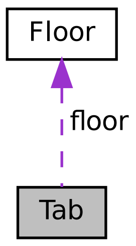
- Bill.h
- Bill.cpp

3.65 Tab Class Reference

The Tab class holds the running tab of a restaurant customer.

```
#include <Tab.h>
```

Collaboration diagram for Tab:



Public Member Functions

- **Tab** (std::string customerName)
- std::string getName ()

  Returns the customer name assosiated with this tab.
- double getTab ()

  Returns the running total for this tab.
- void addToTab (double)

  Adds valueToAdd to the current tab.
- void subtractFromTab (double)

  Deducts valueToSubtract from current tab.

Public Attributes

- Floor ∗ **floor**

3.65.1 Detailed Description

The Tab class holds the running tab of a restaurant customer.

3.65.2 Member Function Documentation

3.65.2.1 addToTab()

```
void Tab::addToTab (
            double valueToAdd )
```

Adds valueToAdd to the current tab.

Parameters

valueToAdd	

3.65.2.2 getName()

```
std::string Tab::getName ( )
```

Returns the customer name assosiated with this tab.

Returns

std::string

3.65.2.3 getTab()

```
double Tab::getTab ( )
```

Returns the running total for this tab.

Returns

double

3.65.2.4 subtractFromTab()

```
void Tab::subtractFromTab (
            double valueToSubtract )
```

Deducts valueToSubtract from current tab.

Parameters

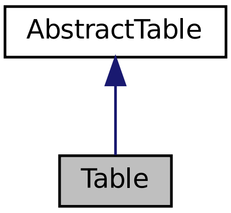
valueToSubtract	

The documentation for this class was generated from the following files:

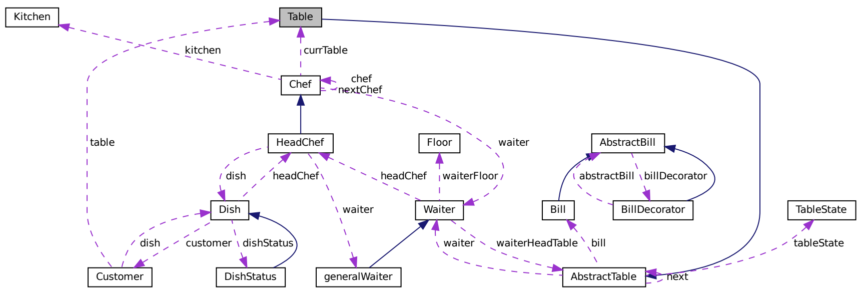
- Tab.h
- Tab.cpp

3.66 Table Class Reference

Inheritance diagram for Table:



Collaboration diagram for Table:



Public Member Functions

- **Table** (int numberOfSeats)
- AbstractTable ∗ operator+ (Table ∗table)
  - *operator overload to add 2 tables and return a table group*
- AbstractTable ∗ operator+ (TableGroup ∗tableGroup)

  operator overload to add a table to a table group
- void acceptVisitor (Visitor ∗visitor)

  Function used in visitor design pattern to accept a waiter to the table.
- AbstractTable ∗ clone ()

  Returns a copy of the table.
- std::vector< Customer ∗ > getCustomers ()

  Returns a vector of customers seated at table.
- void setState (TableState ∗tableState)

  Sets state for current table.
- TableState ∗ getState ()

  gets state
- void handleState ()

State handler for table class.
- Bill ∗ getBill (Customer ∗customer)

  Returns bill for the table.
- void setWaiter (Waiter ∗waiter)

  Sets waiter for current table.
- Waiter ∗ getWaiter ()

  Gets waiter for current table.
- void **getOrders** ()

Additional Inherited Members

3.66.1 Member Function Documentation

3.66.1.1 acceptVisitor()

```
void Table::acceptVisitor (
            Visitor ∗ visitor )  [virtual]
```

Function used in visitor design pattern to accept a waiter to the table.

Parameters

visitor	

Implements AbstractTable.

3.66.1.2 clone()

```
AbstractTable ∗ Table::clone ( )  [virtual]
```

Returns a copy of the table.

Returns

AbstractTable∗

Implements AbstractTable.

3.66.1.3 getBill()

```
Bill ∗ Table::getBill (
            Customer ∗ customer )
```

Returns bill for the table.

Parameters

customer	

Returns

Bill∗

3.66.1.4 getCustomers()

```
std::vector< Customer * > Table::getCustomers ( )
```

Returns a vector of customers seated at table.

Returns

std::vector<Customer ∗>

3.66.1.5 getState()

```
TableState * Table::getState ( )
```

gets state

Returns

TableState∗

3.66.1.6 getWaiter()

```
Waiter * Table::getWaiter ( )
```

Gets waiter for current table.

Returns

Waiter∗

3.66.1.7 operator+() [1/2]

```
AbstractTable * Table::operator+ (
                Table * table )  [virtual]
```

- operator overload to add 2 tables and return a table group

Parameters

table	

Returns

AbstractTable∗

Implements AbstractTable.

3.66.1.8 operator+() [2/2]

```
AbstractTable * Table::operator+ (
             TableGroup * tableGroup )  [virtual]
```

operator overload to add a table to a table group

Parameters

tableGroup	

Returns

AbstractTable∗

Implements AbstractTable.

3.66.1.9 setState()

```
void Table::setState (
             TableState * state )
```

Sets state for current table.

Parameters

state	

3.66.1.10 setWaiter()

```
void Table::setWaiter (
             Waiter * waiter )
```

Sets waiter for current table.

Parameters

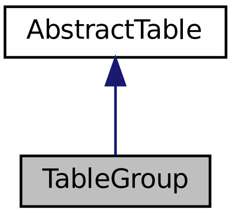
waiter	

The documentation for this class was generated from the following files:

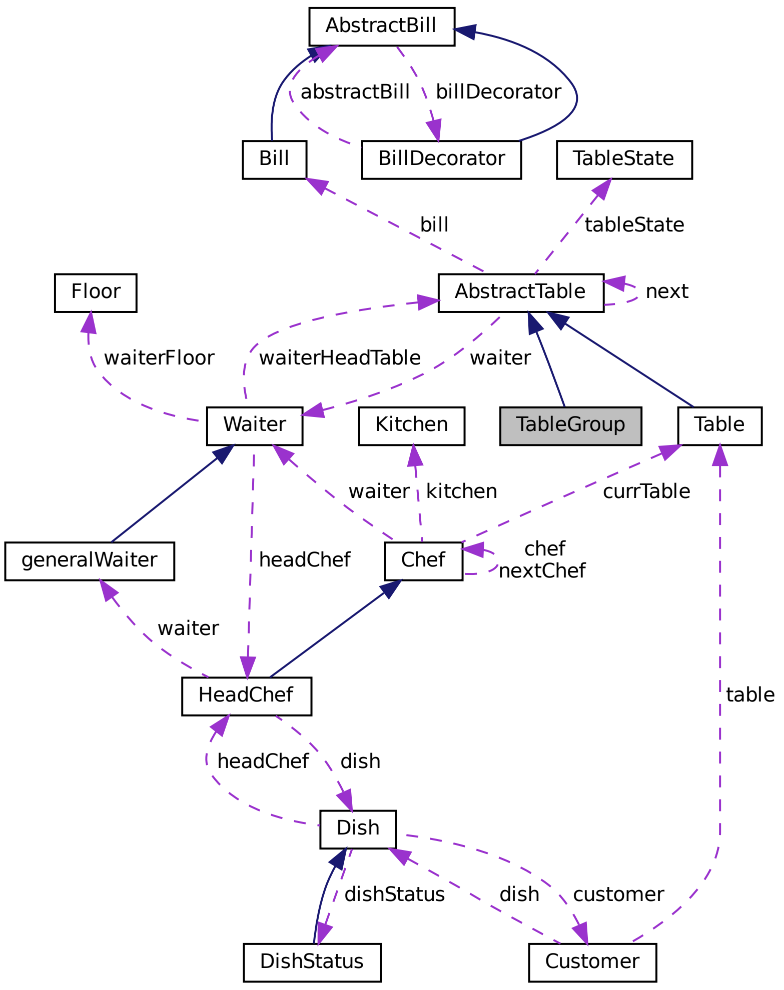
- Table.h
- Table.cpp

3.67 TableGroup Class Reference

Inheritance diagram for TableGroup:



Collaboration diagram for TableGroup:



Public Member Functions

- **TableGroup** (int numberOfSeats=0)
- void addTable (AbstractTable ∗aTable)

  Adds a table to tables vector.
- void acceptVisitor (Visitor ∗visitor)

  Function to accept a table visitor.
- AbstractTable ∗ operator+ (TableGroup ∗tableGroup)

  operator overload to add 2 table groups and return a table group
- AbstractTable ∗ operator+ (Table ∗table)

  – *operator overload to add a table to the table group*
- AbstractTable ∗ clone ()

  Returns reference to current table.
- std::vector< AbstractTable ∗ > getTables ()

  Returns tables vector.

Additional Inherited Members

3.67.1 Member Function Documentation

3.67.1.1 acceptVisitor()

```
void TableGroup::acceptVisitor (
             Visitor * visitor )  [virtual]
```

Function to accept a table visitor.

Parameters

visitor	

Implements AbstractTable.

3.67.1.2 addTable()

```
void TableGroup::addTable (
             AbstractTable * aTable )
```

Adds a table to tables vector.

Parameters

aTable	

3.67.1.3 clone()

```
AbstractTable * TableGroup::clone ( )  [virtual]
```

Returns reference to current table.

Returns

AbstractTable∗

Implements AbstractTable.

3.67.1.4 getTables()

```
std::vector< AbstractTable * > TableGroup::getTables ( )
```

Returns tables vector.

Returns

std::vector<AbstractTable *>

3.67.1.5 operator+() [1/2]

```
AbstractTable * TableGroup::operator+ (
            Table * table ) [virtual]
```

- operator overload to add a table to the table group

Parameters

table	

Returns

AbstractTable*

Implements AbstractTable.

3.67.1.6 operator+() [2/2]

```
AbstractTable * TableGroup::operator+ (
            TableGroup * tableGroup ) [virtual]
```

operator overload to add 2 table groups and return a table group

Parameters

tableGroup	

Returns

AbstractTable*

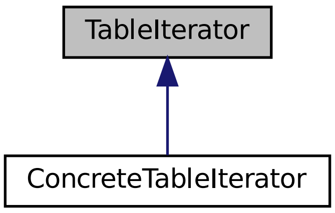
Implements AbstractTable.

The documentation for this class was generated from the following files:

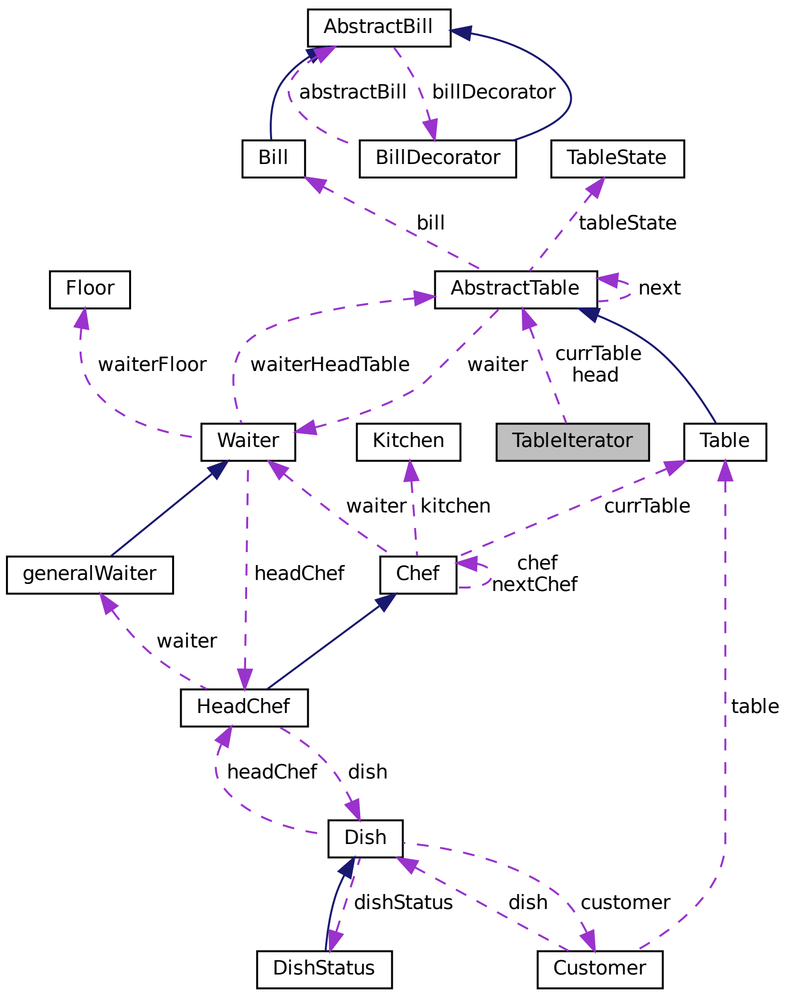
- Table.h
- Table.cpp

3.68 TableIterator Class Reference

Inheritance diagram for TableIterator:



Collaboration diagram for TableIterator:



Public Member Functions

- virtual AbstractTable ∗ **next** ()=0
- virtual bool **hasNext** ()=0
- virtual AbstractTable ∗ **first** ()
- virtual AbstractTable ∗ **CurrentItem** ()

Public Attributes

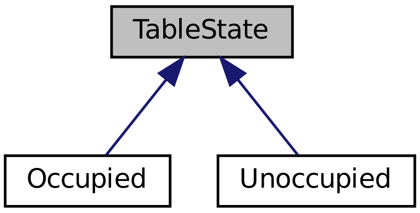
- AbstractTable ∗ **currTable**
- AbstractTable ∗ **head**

The documentation for this class was generated from the following file:

- TableIterator.h

3.69 TableState Class Reference

Inheritance diagram for TableState:



Public Member Functions

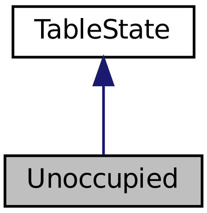
- virtual std::string **getState** ()=0
- virtual void **handleState** (AbstractTable ∗table)=0

The documentation for this class was generated from the following file:

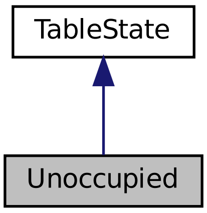
- Table.h

3.70 Unoccupied Class Reference

Inheritance diagram for Unoccupied:



Collaboration diagram for Unoccupied:



Public Member Functions

- void handleState (AbstractTable ∗table)

  State handler for table state.
- std::string getState ()

  Returns string which specifies table state.

3.70.1 Member Function Documentation

3.70.1.1 getState()

```
std::string Unoccupied::getState ( )  [virtual]
```

Returns string which specifies table state.

Returns

std::string

Implements TableState.

3.70.1.2 handleState()

```
void Unoccupied::handleState (
            AbstractTable * table )  [virtual]
```

State handler for table state.

Parameters

table	

Implements TableState.

The documentation for this class was generated from the following files:

- Table.h
- Table.cpp

3.71 Visitor Class Reference

Public Member Functions

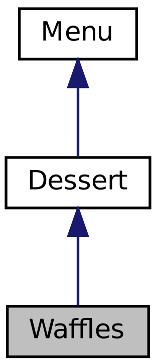
- virtual void **visitTable** (AbstractTable ∗)

The documentation for this class was generated from the following files:

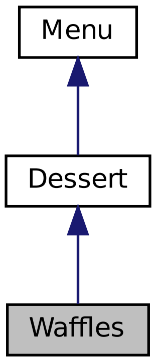
- Visitor.h
- Visitor.cpp

3.72 Waffles Class Reference

Inheritance diagram for Waffles:



Collaboration diagram for Waffles:



Public Member Functions

- Waffles ()

  Constrcutor for waffles dessert.

Additional Inherited Members

The documentation for this class was generated from the following files:

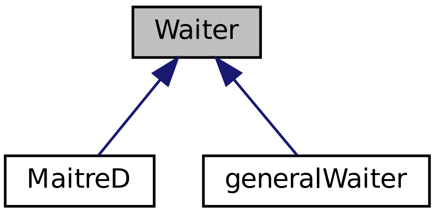
- Menu.h
- Menu.cpp

3.73 Waiter Class Reference

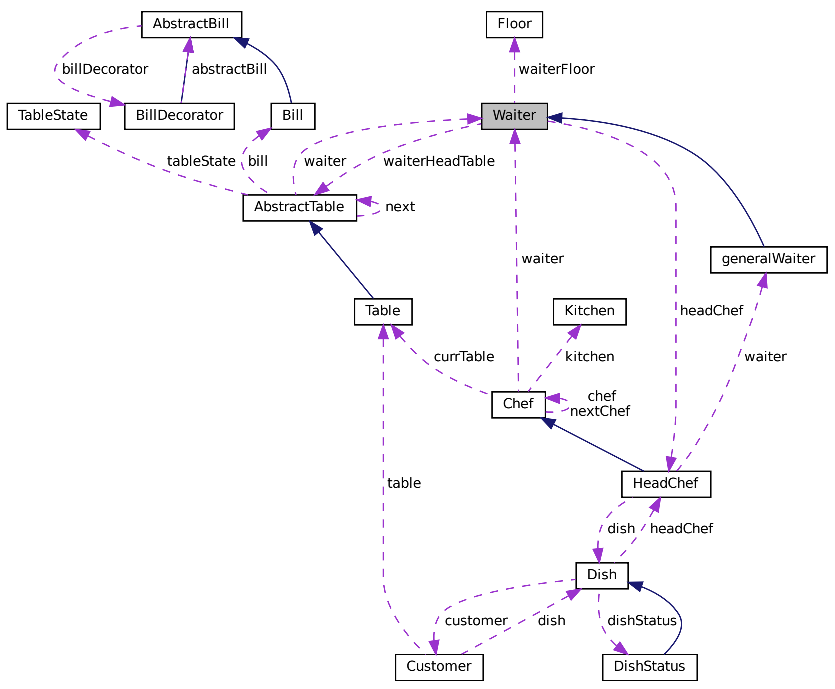
Waiters are responsible for serving customers.

```
#include <Waiter.h>
```

Inheritance diagram for Waiter:



Collaboration diagram for Waiter:



Public Member Functions

- **Waiter** (std::string WaiterName, HeadChef ∗hc, Floor ∗floor)
- virtual void **performTask** ()=0
- void deliverOrder (Dish ∗dish)

    Delivers an order from the head chef to the relevant customer.
- void getOrder (Dish ∗dish)

    Gets the orders of all the customers and sends each to the head chef use place order function of all customers at table.
- void sendOrder (Dish ∗)

    Send order function for the waiter class This function sends all the customer orders to the head chef and changes the state of the dishes sent to "preparing".

Public Attributes

- Floor ∗ **waiterFloor**
- int **waiterWaitTime**
- HeadChef ∗ **headChef**
- std::string **waiterName**
- AbstractTable ∗ **waiterHeadTable**

3.73.1 Detailed Description

Waiters are responsible for serving customers.

3.73.2 Member Function Documentation

3.73.2.1 deliverOrder()

```
void Waiter::deliverOrder (
            Dish * order )
```

Delivers an order from the head chef to the relevant customer.

Parameters

order	

3.73.2.2 sendOrder()

```
void Waiter::sendOrder (
            Dish * order )
```

Send order function for the waiter class This function sends all the customer orders to the head chef and changes the state of the dishes sent to "preparing".

Parameters

order	

The documentation for this class was generated from the following files:

- Waiter.h
- Waiter.cpp

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