COS 214 GroupProj. Documentation

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Class List

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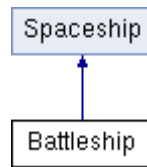
C **Battleship**

C **BattleshipFactory**

C **ExplorationFactory**

C **ExplorationVessel**

C **FighterFactory**

C **FighterTransporter**

C **Frigate**

C **FrigateFactory**

C **Spaceship**

C **SpaceshipFactory**

C **SpaceshipTransporter**

C **SpaceTransporterFactory**

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Battleship Class Reference

`#include <`**`Battleship.hpp`**`>`

Inheritance diagram for Battleship:

Public Member Functions

	Battleship ()
	Battleship constructor.
void	**SpaceshipDescr** ()
	Spaceship is inherited from **Spaceship** parent class but implemented in **Battleship** class.

▶ **Public Member Functions inherited from Spaceship**

Detailed Description

Battleship class is a concrete product which inherits publicly from **Spaceship**

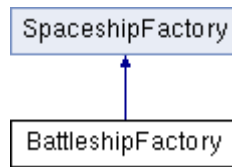The documentation for this class was generated from the following files:

- /Users/admin/Documents/Second Semester 2019/COS 214/project2019/COS214GroupProj/COS214GroupProj/**Battleship.hpp**
- /Users/admin/Documents/Second Semester 2019/COS 214/project2019/COS214GroupProj/COS214GroupProj/Battleship.cpp

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BattleshipFactory Class Reference

#include <**BattleshipFactory.hpp**>

Inheritance diagram for BattleshipFactory:

Public Member Functions

Spaceship * **buildSpaceship** ()

    buildspaceship function for instantiating a spaceship a **Battleship** spaceship of type **Spaceship** class

Detailed Description

BattleshipFactory class is concrete factory for instantiating **Battleship** spaceships by inheriting from abstract factory

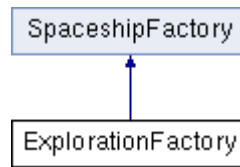The documentation for this class was generated from the following files:

- /Users/admin/Documents/Second Semester 2019/COS 214/project2019/COS214GroupProj/COS214GroupProj/**BattleshipFactory.hpp**
- /Users/admin/Documents/Second Semester 2019/COS 214/project2019/COS214GroupProj/COS214GroupProj/BattleshipFactory.cpp

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ExplorationFactory Class Reference

#include <**ExplorationFactory.hpp**>

Inheritance diagram for ExplorationFactory:

Public Member Functions

Spaceship * **buildSpaceship** ()

buildspaceship function for instantiating a spaceship a Exploration spaceship of type **Spaceship** class

Detailed Description

ExplorationFactory class is concrete factory for instantiating Exploration spaceships by inheriting from abstract factory

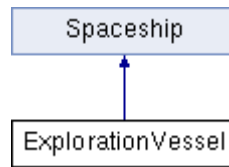The documentation for this class was generated from the following files:

- /Users/admin/Documents/Second Semester 2019/COS 214/project2019/COS214GroupProj/COS214GroupProj/**ExplorationFactory.hpp**
- /Users/admin/Documents/Second Semester 2019/COS 214/project2019/COS214GroupProj/COS214GroupProj/ExplorationFactory.cpp

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ExplorationVessel Class Reference

`#include <`**`ExplorationVessel.hpp`**`>`

Inheritance diagram for ExplorationVessel:

Public Member Functions

ExplorationVessel ()

    ExplorationVessel constructor.

void **SpaceshipDescr** ()

    Spaceship is inherited from **Spaceship** parent class but implemented in **ExplorationVessel** class.

▶ **Public Member Functions inherited from Spaceship**

Detailed Description

ExplorationVessel class is a concrete product which inherits publicly from **Spaceship**

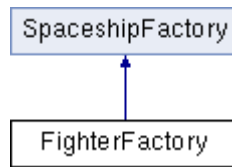The documentation for this class was generated from the following files:

- /Users/admin/Documents/Second Semester 2019/COS 214/project2019/COS214GroupProj/COS214GroupProj/**ExplorationVessel.hpp**
- /Users/admin/Documents/Second Semester 2019/COS 214/project2019/COS214GroupProj/COS214GroupProj/ExplorationVessel.cpp

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FighterFactory Class Reference

#include <**FighterFactory.hpp**>

Inheritance diagram for FighterFactory:

Public Member Functions

Spaceship * **buildSpaceship** ()

> buildspaceship function for instantiating a spaceship a fighter spaceship of type **Spaceship** class

Detailed Description

FighterFactory class is concrete factory for instantiating Fighter spaceships by inheriting from abstract factory

The documentation for this class was generated from the following files:
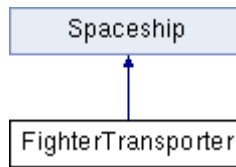
- /Users/admin/Documents/Second Semester 2019/COS 214/project2019/COS214GroupProj/COS214GroupProj/**FighterFactory.hpp**
- /Users/admin/Documents/Second Semester 2019/COS 214/project2019/COS214GroupProj/COS214GroupProj/FighterFactory.cpp

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FighterTransporter Class Reference

`#include <`**`FighterTransporter.hpp`**`>`

Inheritance diagram for FighterTransporter:

Public Member Functions

	FighterTransporter ()
	FighterTransporter constructor.
void	**SpaceshipDescr** ()
	Spaceship is inherited from **Spaceship** parent class but implemented in **FighterTransporter** class.

▶ **Public Member Functions inherited from Spaceship**

Detailed Description

FighterTransporter class is a concrete product which inherits publicly from **Spaceship**

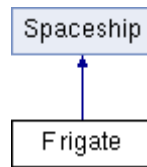The documentation for this class was generated from the following files:

- /Users/admin/Documents/Second Semester 2019/COS 214/project2019/COS214GroupProj/COS214GroupProj/**FighterTransporter.hpp**
- /Users/admin/Documents/Second Semester 2019/COS 214/project2019/COS214GroupProj/COS214GroupProj/FighterTransporter.cpp

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Frigate Class Reference

`#include <`**`Frigate.hpp`**`>`

Inheritance diagram for Frigate:

Public Member Functions

	Frigate ()
	Frigate constructor.
void	**SpaceshipDescr** ()
	Spaceship is inherited from **Spaceship** parent class but implemented in **Frigate** class.

▶ **Public Member Functions inherited from Spaceship**

Detailed Description

Frigate class is a concrete product which inherits publicly from **Spaceship**

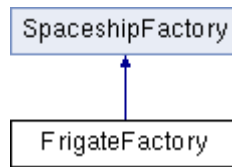The documentation for this class was generated from the following files:

- /Users/admin/Documents/Second Semester 2019/COS 214/project2019/COS214GroupProj/COS214GroupProj/**Frigate.hpp**
- /Users/admin/Documents/Second Semester 2019/COS 214/project2019/COS214GroupProj/COS214GroupProj/Frigate.cpp

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FrigateFactory Class Reference

`#include <`**`FrigateFactory.hpp`**`>`

Inheritance diagram for FrigateFactory:

Public Member Functions

Spaceship * **buildSpaceship** ()

buildspaceship function for instantiating a spaceship a **Frigate** spaceship of type **Spaceship** class

Detailed Description

FrigateFactory class is concrete factory for instantiating **Frigate** spaceships by inheriting from abstract factory

The documentation for this class was generated from the following files:
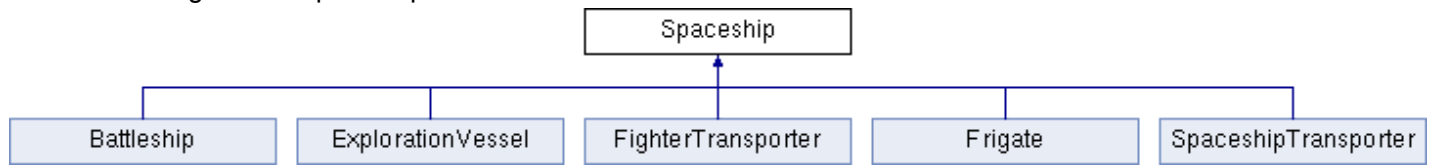
- /Users/admin/Documents/Second Semester 2019/COS 214/project2019/COS214GroupProj/COS214GroupProj/**FrigateFactory.hpp**
- /Users/admin/Documents/Second Semester 2019/COS 214/project2019/COS214GroupProj/COS214GroupProj/FrigateFactory.cpp

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Spaceship Class Reference `abstract`

```
#include <Spaceship.hpp>
```

Inheritance diagram for Spaceship:

Public Member Functions

	Spaceship ()	
	Abstract product constructor.	
	Spaceship (double disp, double thr, double pow, int max, int stall)	
	parametized constructor of spaceship class	
virtual	**~Spaceship** ()	
	virtual destructor of base class	
virtual void	**SpaceshipDescr** ()=0	
	SpaceshipDescr prints out the details of a spaceship. is declared as pure virtual and will be implemented in the child classes.	
void	**setDisplacement** (double disp)	
double	**getDisplacement** ()	
void	**setPower** (double pow)	
double	**getPower** ()	
void	**setMaxSpeed** (int max)	
int	**getMaxSpeed** ()	
void	**setStallSpeed** (int stall)	
int	**getStallSpeed** ()	
void	**setThrust** (double thr)	
double	**getThrust** ()	

Private Attributes

double	**displacement**	
	Displacement is the distance that the spaceship has moved from it's initial position.	
double	**power**	
	Power refers to the.	
double	**thrust**	
	Thrust refers to how much energy is required to propel the spaceship forward.	
int	**maxSpeed**	
	the maximum speed that the spaceship can travel	
int	**stallSpeed**	
	the normal speed which the spaceship moves at is the stall speed	

vector< string > **crew**

    a vector of strings to store the names of the crew members

vector< string > **passengers**

    a vector of passengers to store the names of the passengers

Detailed Description

Spaceship class acts as Abstract product class in Abstract Factory pattern

Member Function Documentation

◆ setDisplacement()

void Spaceship::setDisplacement (double disp) `inline`

A set of getters and setters

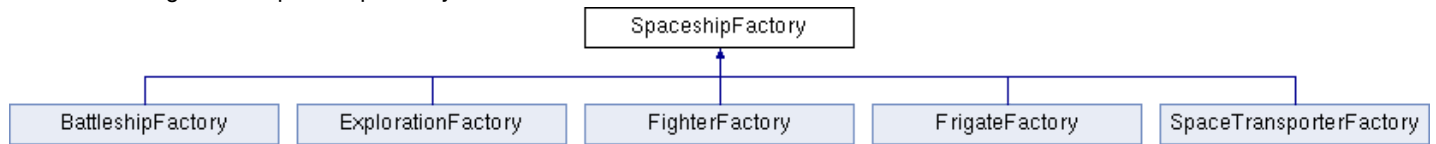The documentation for this class was generated from the following files:

- /Users/admin/Documents/Second Semester 2019/COS 214/project2019/COS214GroupProj/COS214GroupProj/**Spaceship.hpp**
- /Users/admin/Documents/Second Semester 2019/COS 214/project2019/COS214GroupProj/COS214GroupProj/Spaceship.cpp

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SpaceshipFactory Class Reference `abstract`

#include <**SpaceshipFactory.hpp**>

Inheritance diagram for SpaceshipFactory:

Public Member Functions

virtual **Spaceship** *	**buildSpaceship** ()=0
	pure virtual function that provides interface for creating spaceships but is only implemented in child classes

Detailed Description

SpaceshipFactory acts at the abstract factory in the AF pattern

The documentation for this class was generated from the following file:
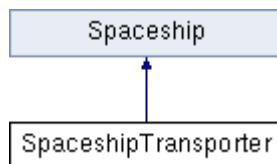
- /Users/admin/Documents/Second Semester 2019/COS 214/project2019/COS214GroupProj/COS214GroupProj/**SpaceshipFactory.hpp**

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SpaceshipTransporter Class Reference

#include <**SpaceshipTransporter.hpp**>

Inheritance diagram for SpaceshipTransporter:

```
  ┌─────────────────────┐
  │     Spaceship       │
  └─────────────────────┘
            ▲
            │
  ┌─────────────────────┐
  │ SpaceshipTransporter │
  └─────────────────────┘
```

Public Member Functions

	SpaceshipTransporter ()
	SpaceshipTransporter constructor.
void	**SpaceshipDescr** ()
	Spaceship is inherited from **Spaceship** parent class but implemented in **SpaceshipTransporter** class.

▶ **Public Member Functions inherited from Spaceship**

Detailed Description

SpaceshipTransporter class is a concrete product which inherits publicly from **Spaceship**

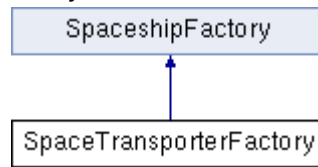The documentation for this class was generated from the following files:

- /Users/admin/Documents/Second Semester 2019/COS 214/project2019/COS214GroupProj/COS214GroupProj/**SpaceshipTransporter.hpp**
- /Users/admin/Documents/Second Semester 2019/COS 214/project2019/COS214GroupProj/COS214GroupProj/SpaceshipTransporter.cpp

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SpaceTransporterFactory Class Reference

#include <**SpaceTransporterFactory.hpp**>

Inheritance diagram for SpaceTransporterFactory:

Public Member Functions

Spaceship * **buildSpaceship** ()

buildspaceship function for instantiating a spaceship a space transporter spaceship of type **Spaceship** class

Detailed Description

SpaceTransporterFactory class is concrete factory for instantiating space transporter spaceships by inheriting from abstract factory

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

- /Users/admin/Documents/Second Semester 2019/COS 214/project2019/COS214GroupProj/COS214GroupProj/**SpaceTransporterFactory.hpp**
- /Users/admin/Documents/Second Semester 2019/COS 214/project2019/COS214GroupProj/COS214GroupProj/SpaceTransporterFactory.cpp

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File List

Here is a list of all documented files with brief descriptions:

[detail level 1 2 3 4 5 6 7 8 9]

▼ **Users**
  ▼ **admin**
    ▼ **Documents**
      ▼ **Second Semester 2019**
        ▼ **COS 214**
          ▼ **project2019**
            ▼ **COS214GroupProj**
              ▼ **COS214GroupProj**

Battleship.hpp

BattleshipFactory.hpp

ExplorationFactory.hpp

ExplorationVessel.hpp

FighterFactory.hpp

FighterTransporter.hpp

Frigate.hpp

FrigateFactory.hpp

Spaceship.hpp

SpaceshipFactory.hpp

SpaceshipTransporter.hpp

SpaceTransporterFactory.hpp

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