Programming Fundamentals

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PROG10004: Programming Principles

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Objects Table (Datatype) -

Number:	Object	Datatypes: User class	Datatype: Python/predefined
1.	Product	Product	NA
2.	Stock	Stock	NA
3.	SalesApplication	Application	NA

Application - The program the user will interact with.
Stock - Information regarding the stock of the product.
Product - Representation of a product. Mimics details of a product such as name, price, stock, cost, and an estimate of the monthly units.

Table of Data Types -

Number	Object	Data Type: User-Defined	Data Type: Python
1.	productName	-	str
2.	productCode	-	int
3.	manufactureCost	-	float
4.	productPrice	-	float
5.	estMonthly	-	int
6.	stockLevel	-	int
7.	monthlyStock	int	-
8.	product	Product	-
9.	application	Application	-

Product Name - Name of the product
Product Code - Code of the product
Manufacturing Cost - Production cost of product

Product Price - Cost to purchase product

Estimated Monthly - Number of products units sold per month
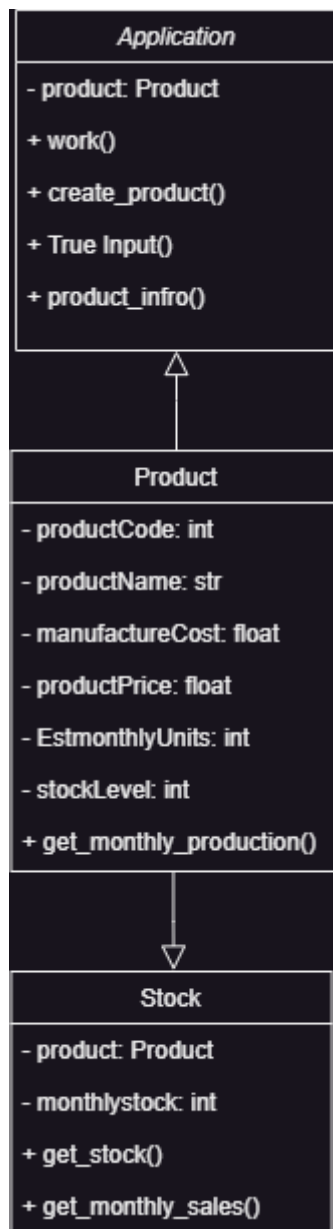
Stock Level - Number of products left

Monthly Stock - Stock of product left in month

Product - Products value and specifications

Application - Program the user interacts with

UML and Class Relations

```
┌─────────────────────────────────┐
│          Application            │
├─────────────────────────────────┤
│ - product: Product              │
│                                 │
│ + work()                        │
│                                 │
│ + create_product()              │
│                                 │
│ + True Input()                  │
│                                 │
│ + product_infro()               │
└─────────────────────────────────┘
                 △
                 │
┌─────────────────────────────────┐
│            Product              │
├─────────────────────────────────┤
│ - productCode: int              │
│                                 │
│ - productName: str              │
│                                 │
│ - manufactureCost: float        │
│                                 │
│ - productPrice: float           │
│                                 │
│ - EstmonthlyUnits: int          │
│                                 │
│ - stockLevel: int               │
│                                 │
│ + get_monthly_production()      │
└─────────────────────────────────┘
                 │
                 ▽
┌─────────────────────────────────┐
│             Stock               │
├─────────────────────────────────┤
│ - product: Product              │
│                                 │
│ - monthlystock: int             │
│                                 │
│ + get_stock()                   │
│                                 │
│ + get_monthly_sales()           │
└─────────────────────────────────┘
```

- Product class works with Stock class and Application class

Program Report -

My experience in coding for this assignment was quite fun, I enjoyed being able to utilise the new tools we have been given. The assignment was a bit challenging and took some time to figure out . I'm not sure what I would add to the assignment in the future.