

Mohamed Sayed Kamel

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Education

Pharos Institute of Computer Science | Giza

Bachelor of Computer Science

September 2021 – Present

Expected Graduation, June 2025

Projects

EpicGamerStore – Spring Boot, Spring Data JPA, Redis, Thymeleaf

- Built a Spring Boot web application from which the user can buy a video game physically or digitally
- Used the State Design Pattern which resulted in different behavior depending on the type of product the customer buys
- Secured the application by integrating the Spring Security module which upgraded the level of security of the website
- Integrated Redis with the application to implement caching which increased the performance of the application
- Implemented test cases for all functionalities of the application which ensured the application is working 100% bug-free
- Documented the application using UML diagrams to demonstrate how the application works easily to other developers

Computers4Sale – Servlet, MySQL, Hibernate, JSP

- Programmed a Servlet web application from which the user can buy computer components
- Used MySQL as the application database, Hibernate to perform operations to the database and JSP for user interface
- Constructed the website into four layers which resulted into more flexibility and extendibility
- Integrated PayPal REST API with the application which allowed the customer to buy the product from PayPal
- Implemented a notification feature using the Observer Design Pattern which resulted into user getting notification when a product becomes in stock

BookStore101 – Python, Flask, SQLite, Bootstrap

- Built a Book store website from which the user can buy books
- Developed and designed the website using Python, Flask as the web framework and SQLite as the database
- Implemented a refund functionality which allowed the user to refund the book before 7 days of purchase date and time
- Programmed a referral system which gives the referrer a discount on some books if the referee bought a certain amount of books

Skills

Programming Languages: Java, C, C++, PHP, Python, JavaScript

Frameworks: Spring Framework (Core – MVC – Boot – REST API – Security), Hibernate, JUnit, Flask

Database: MySQL, SQLite, MongoDB

Other Technologies: Servlet, JSP, Maven, Git, SVN, XML, JSON, HTML, CSS

Other skills: Data Structures, Algorithms, Object-Oriented Design, Design Patterns

Software: Postman, IntelliJ IDEA, Eclipse, Visual Studio Code

Courses

CS50's introduction to computer science course by Harvard University

- Gained a solid foundation on programming fundamentals by learning low level concepts using the C language
- Took several problem-sets which improved my problem-solving skills and deepened my knowledge of several programming concepts such as memory management and pointers
- Developed a book store web application using Python and flask framework as the final project of the course

[Certificate Link](#)

Spring framework specialization by Coursera

- Took several problem-sets and labs which helped me gaining a deep understanding of the how spring framework works
- Developed a video game store web application as the final project of the specialization