PAYMENT APPLICATION

BSC (HONS) COMPUTER SCIENCE

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WEB APPS AND SERVICES

DEPARTMENT OF INFORMATICS

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# Layers

The sections below describe the extent to which requirements were achieved, stating the implementation for each.

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| REQUIREMENT | IMPLEMENTATION |
| Presentation Layer | |
| User can view all transactions | * All user transactions displayed on transactions page |
| User can make direct payments to other users | * User can make payments on transfer page |
| User can request payments from other users | * User can make transfer requests on requests page |
| User can view balance | * User can view balance on home page |
| Admin can view all user accounts | * Admin can view all user accounts and balances on home page |
| Admin can view all transactions | * Admin can view all user transactions on Transactions page |
| Admin can register new admins | * Admin can register new admins on register admin page |
| Business Logic Layer | |
| Transactions guarantee ACID properties | * Transactions use transaction.atomic decorator where necessary to ensure ACID properties |
| Views to support presentation layer | * Views support all presentation layer requirements specified above |
| Data Access Layer | |
| Appropriate models created using SQLite | * All necessary models are implemented, and use the SQLite database generated |
| Appropriate table relations created | * All models use foreign keys where necessary, cascading on deletion |
| Security Layer | |
| Authentication functionality (registration, login, logout) | * All users and admins can login, logout, and register |
| Access control | * Website cannot be accessed without a user login * Users cannot access admin-specific pages |
| Communication on top of HTTPS | * Self-signed certificate and key file generated for HTTPS use |
| Protection against cross-site scripting (XSS), cross-site request forgery (CSRF), SQL injection, and clickjacking. | * CSRF tokens required for requests * All data thoroughly validated on entry |
| Initial admin registration | * Admin is initialised in accordance with outline |
| Web Services | |
| RESTful web service that responds to GET requests | * RestAPI implemented in api application |
| RestAPI responds with HTTPResponse | * API responds with HTTPResponse containing conversion rate and amount of second input currency |

# User Manual

This section shows a series of screenshots for the user, and the admin. These show all of the features of the website.

## User

## Admin