**PACT (People, Activities, Contexts, Technologies) Summary**

**Product Name: Banking System Beta Version 1.0b**

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| **People**  Who do you think are the key users of this product?  Think about the broad user groups that can be identified.  List these groups and their likely characteristics ***in order of priority*** for the product in question.  Not general considerations for building *any* system, but specific considerations for designing *your user-system interactions*  Any characteristics that could affect your interface design?  Are the users homogenous/heterogeneous?  (physical, cognitive, usage pattern differences) | **PACT Summary**   * **Bank Employees and Administrator** * **Bank Clients**   Implications:   * Probably both Bank Staff and Clients are technologically competent/have experience operating computer programs and interfaces, usual input/output devices used * The users are heterogeneous with differences in age, gender, ability, educational background and usage patterns: Bank staff may be more experienced with such computer programs and interfaces |
| **Activities**  What are the main goals/tasks users will want to achieve with this product?  Again, list these ***in order of priority*** (e.g. if the system has a log in it is likely that a user would create an account just once therefore that task should be bottom of the list) | * Login * Create Staff/Client Account * Withdraw/Deposit Money from Account * View Account Balance * Save Transaction History to a file locally * View Client/Employee Accounts \* * Edit Client/Employee Account Data \* * Delete Client/Employee Account Data \*   \*Depending on the Account Role (Clearance) |
| **Contexts**  Where will this product be used? Describe the likely environment, ***physical, organisational &social***, and discuss the implications of this (e.g. the product’s resilience to the environmental factors such as noise, disturbance, light, ability to connect to WiFi if out and about, cooperation with others - single or multiple person interaction etc.) | * In Work Environment * From designated machines by the bank, within the bank * Needs Connection to the database * No shared use * No Time Constraint * No Sounds within the program other than the predefined windows sounds * No Videos * No Implication with noisy/busy environment |
| **Technologies**  What type of technology will the users have? Consider input and output, data types etc. test, speech, icons, error messages etc.  You should link to what you have said in the contexts section above.  You should also link to what you have said in the activities section above (e.g. if an activity is to leave comments then the input technology might be a form; if the activity is to search then the input technology might be a search bar). | Desktop Interface – keyboard, mouse   * Login – text input fields, button * Create Accounts - text input fields, button * Dashboard of Controls – from, buttons * Deposit – text input, button * Withdraw – text input, button * View Account Details – text interface * View Balance – text interface, buttons * View Client/Employee Accounts – text interface, buttons |
| **Business Goals: What are the product’s primary business goals?**  **Making Bank Management Easier**  **Making Transactions with the Bank Easier**  **Centralise data into a single place** | |

**Requirement Analysis**

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| **Functional Requirements**  *1. Inputs*  The following program devices and functionality allow users to input data and interact with the Program:   * Text Labels * Text Fields * Buttons * Variety of buttons that provide access to a wide array of Functions(e.g. Deposit And Withdraw buttons) * Fields that accept both numerical and textual user inputs (e.g. username text field, password text field, First Name text field...)   *2. Processing*   * A form that processes input from two text fields and cross-references them to the Bank Database. * Form that processes input from multiple text fields and creates new entries in the Bank Databases. * Form that processes input from a single numeric input field and then Updates and Inserts into Bank Database. * Forms that display data using the entries in the Bank Database, with the ability to create/append to a local text file.   *3. Outputs*   * Ability to create and append to a local text file * CRUD Operations with the Bank Database   *4. Error Handling*   * Basic Error Handling is done internally * Error Notifications if the User provides invalid data, e.g. User tries to Deposit null amount, Withdraws amount bigger than the available balance, (User Creation) if the username and/or password already exist within the bank database * Dialog box error messages (with suggestions and hints on how a user can rectify a specific error), e.g. “The Username and/or Password Already exist” * Dialog Boxes that inform the user if something is wrong with the system (e.g. “Connection With Database Failed”) | **Non-Functional Requirements**  *1. Resources and Physical Environment*   * *Equipment:* The program runs only on Windows, regardless of device (e.g. Laptops, PCs, tablets running any version of Windows newer than windows 7) * *Locations:* The Program is accessible from any computer that it is installed on * *Physical space:* The layout, structure, and format of the program is responsive to different screen sizes. The program window is not sizeable but designed to have no loss of functionality or interactivity regardless of screen size.   *2. Interfaces (including interactions with other applications)*   * Well-designed interface in terms of its layout, structure, colour scheme, and format. * The user interface is visually pleasing with user friendly colours and appropriate font sizes, thereby creating a user-friendly aesthetic. * Limited use of Images, mainly to distinguish the position of each button.   *3. User and Human Factors*   * The program has been designed to target a large demographic, but mainly for groups who want to interact with the bank. * The content is written in intelligible and easy to understand English. Therefore, the program’s content should appeal to different socio-economic groups and a cross-section of professional areas (e.g. nurse, doctor, teacher, retail assistant, etc.). * The program should appeal to both computer literates and non-literates. * Apparently, there is no option or functionality to change font size. There does not seem to be a zoom feature – hence, visually impaired persons may encounter accessibility issues. * There is no Text-to-Speech functionality therefore acoustically impaired individuals may encounter accessibility issues   *4. Performance*   * No issues with the program’s overall performance. * Fast computing on any system should be expected. * Efficient content navigation and data retrieval. * No buffering or latency.   *5. Documentation*   * The program allows the user to save their transaction history locally, using a text file created in the directory of the program.   *6. Security considerations*   * As the program interacts with the database it runs the risk of an SQL Injection therefore data stored in the database are exposed * Functions store data from the database locally, therefore exposing sensitive data (e.g. Usernames, Balance)   *7. Quality Assurance*   * Apparently, no facility on the program to provide feedback as a method to improve the product with consumer needs in mind. |

**System Flowchart**

**Operation: User Login / Client Account Creation**

