**REPORT: NADRA IDENTITY MANAGEMENT SYSTEM**

**Introduction:** The cutting-edge Identity Management System (IMS) stands out as a sophisticated software solution designed to streamline the intricate processes of administering and organizing user identification data. Leveraging assembly language, specifically incorporating Irvine32 library procedures, this system boasts a range of functionalities, including creating, renewing, updating, and displaying user details linked to unique identification numbers.

**Functionality Overview:**

**Identity Creation Module:**

-Users can seamlessly input a valid ID number (CNIC/BAYFORM) for processing.

-The system meticulously validates the input, ensuring it aligns with specified format standards.

-Upon successful validation, users are presented with an array of options for subsequent actions.

**ID Management Options:**

-**CNIC Generation:** Facilitates users in converting a bayform into a CNIC, contingent upon age restrictions. A CNIC is generated if the user meets the age criterion.

**-CNIC Renewal:** Users have the option to renew their CNIC based on predefined criteria.

**-Details Printing:** Displays user information including name (mother, father, last name, first name), age, date of birth, gender, and associated province.

**-Information Update:** Offers users the flexibility to modify details like age, name, and gender.

**Key Features:**

**-Rigorous Validation:** The system employs a meticulous validation process for user inputs to ensure accuracy and adherence to defined standards before executing actions.

**-Organized Detail Presentation:** User details are presented systematically, ensuring clarity. Unique identifiers, like the last digit denoting gender and the first digit representing the user's province, enhance data representation.

**-Comprehensive Error Handling:** The system includes informative error messages for scenarios such as invalid input, age restrictions, and duplicate CNIC generation.

**Code Structure:**

The code follows a logical structure with distinct sections (.data and .code) for data definitions and program logic, respectively.

It defines data segments for user information, covering names, dates of birth, ages, CNIC/BAYFORM numbers, and status indicators.

Procedures are established for functions such as age retrieval, index searching, detail printing, user updates, and validation.

The runtime stack is efficiently utilized for seamless data handling.

Nested function calls contribute to a well-organized and structured code.

Strategic use of arrays for data storage and updates, coupled with status flags for specific functionalities, enhances system performance.

String manipulation logics ensure the safety and accuracy of data representation.

**Conclusion:** The Advanced Identity Management System serves as a highly capable tool for handling user identification information, offering a comprehensive approach within defined constraints. This system not only showcases the prowess of assembly language in functionality and data management but also provides flexibility for customization based on specific requirements.

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