### SERIES PURPOSE:
The purpose of the data base analyst occupation is to maintain &/or design mainframe computer data bases.

At the lower levels, incumbents perform routine maintenance of data bases, assist in design of data bases, act as lead worker on various aspects of data base design or independently perform all aspects of data base design.

### Glossary:
The following terms will be used in the specification and mean the following:

- **ACB**: access control blocks
- **Database Tool/Utilities**: support tool used to determine status of a database e.g., how full, how fragmented, ensures no broken pointers between records) & to do performance tuning e.g., unloading/re-loading data; restructuring data layout & file sizes)
- **DBD**: data base definitions
- **Key Worker**: Employee designated by data base administrator or other supervisory/managerial personnel, by Position Description, to be primarily responsible for design & implementation of data bases ranging in size from small to medium for assigned agency.
- **Platform**: Maker/manufacturer of the hardware the data base system runs on e.g., IBM, Digital); or maker/manufacturer of the hardware the data system runs on & size & processing power of the computer (e.g., IBM mainframe platform, IBM AS400 which is mid-sized).
- **Project Leader**: employee with total responsibility for planning, administering & coordinating all aspects of & activities related to design, implementation of data base systems to be carried out in conjunction with other involved personnel
- **PSB**: program specification blocks
- **Relational Data Bases**: Small data base system: up to 25 inter-related tables Medium data base system: 25 but less than 45 inter-related tables Large data base system: 45-70 inter-related tables Very large data base system: more than 70 inter-related tables
- **Hierarchical Data Bases**: Small data base system: up to 10 segment types Medium data base system: 20 but less than 40 segment types Large data base system: 40 but less than 60 segment types Very large data base system: more than 60 segment types
CLASS TITLE: Data Base Analyst 3
CLASS NUMBER: 64153S

CLASS CONCEPT:
The full performance level class works under general supervision & requires considerable knowledge of computer science & data base management systems in order to act as team leader (i.e., provide work direction & training over lower-level data base analysts and/or other information technology personnel in elementary data base design, monitor efficiency of data base performance & employ tuning measures to improve performance using high-level information management system tools/utilities, participate in advanced phases of data base design, test new releases of data base management software & act as liaison between agency data base section & contract personnel, or to act as lead worker (i.e., provide work direction & training over lower-level data base analysts &/or project design team members in design, implementation of data bases, assist data base administrator in overall design, implementation, recovery, security & maintenance of data bases or computer systems executing under one or more than one data base management systems, develop, & execute & test procedures for data base level, back-up recovery, monitor data base growth & processing efficiency & respond to "production down" problems on 24 hour basis.

CLASS TITLE: Data Base Analyst 4
CLASS NUMBER: 64154S

CLASS CONCEPT:
The advanced level class works under general direction requires thorough knowledge of computer science & data base management system in order to independently perform all aspects of data base design, implement new designs, recommend new data base management software, test a& review information management system call patterns in application programs application test results to ensure data base is designed & turned efficiently or to plan, administer & coordinate all aspects of & activities related to design, implementation & operation of large & complex data base possibly under multiple data base management systems & respond to "production down" problems on 24 hour basis.
JOB DUTIES IN ORDER OF IMPORTANCE: (THESE DUTIES ARE ILLUSTRATIVE ONLY. INCUMBENTS MAY PERFORM SOME OR ALL OF THE DUTIES OR OTHER JOB-RELATED DUTIES AS ASSIGNED).
Acts as lead worker over lower-level data base analysts in elementary data base design, monitors efficiency of data base, performance & employs turning measures to improve performance using high-level information system tools/utilities, participates in advanced phases of data base design & test new releases for data base analysts &/or project team members (i.e., data base analysts &/or programmer/analysts &/or systems analysts) in design & implementation of data bases, assists data base administrator in overall design, implementation, recovery, security & maintenance of data bases of medium size or computer systems executing under one or more than one data base management systems, develops, executes & tests procedures for data base level backup & recovery, monitors data base growth & processing efficiency & responds to "production down" problems on 24 hour basis.

Provides technical assistance to programming &/or system analysis staff; acts as liaison between agency data base section & contract staff; writes & maintains large, complex computer programs & system flowcharts; reviews system designs & program coding to ensure standards are met; assists users in resolving systems or program problems; trains user &/or staff in data base maintenance, access & or design; prepares reports of data base usage & status.

MAJOR WORKER CHARACTERISTICS:
Knowledge of computer science; one or more data base management systems depending upon specifics of positions & their programming on one or more hardware platform depending upon specifics of position; COBOL &/OR other high-level programming languages; systems analysis & design. Skill in operating or computer terminal. Ability to deal with large number of variables & determine specific course of action; interpret variety of technical material; communicate verbally & in writing on technical & non-technical matters; move hands/fingers easily to operate computer terminal.

(*)Developed after employment

MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:
Completion of undergraduate core program in computer science or associate degree in computer information science; 3 yrs. exp. in systems analysis & design & computer programming using COBOL &/or other high-level programming language. -Or 12 mos. as Data Base Analyst 2, 64152. -Or alternative, equivalent evidence of the Major Worker Characteristics noted above

-Or equivalent of Minimum Class Qualifications For Employment noted above.

TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT: Not applicable.
UNUSUAL WORKING CONDITIONS: Work involves operation of computer terminal for long periods of time; requires significant amount of overtime often under high stress, rushed conditions.
JOB DUTIES IN ORDER OF IMPORTANCE: (THESE DUTIES ARE ILLUSTRATIVE ONLY. INCUMBENTS MAY PERFORM SOME OR ALL OF THE DUTIES OR OTHER JOB-RELATED DUTIES AS ASSIGNED).
Independently performs all aspects of data base management system design, implements new designs, recommends new data base management software, tests & reviews information management system call patterns in application programs, reviwes application test results to ensure data base is designed & tuned efficiently & acts as group leader over lower-level data base analysts &/or programmer/analysts &/or systems analysts in implementation & ongoing development of data base portion of all new projects (e.g., assigns task & projects, monitors progress, evaluates work & provides work direction), or plans, administers & coordinates all aspects of & activities related to design, implementation & operation of large & complex data base systems possibly under multiple data base management systems.
Resolves user problems & maintains user contact to assess needs, answer questions & provide technical information; trains lower-level date base analysts; assists programming staff in reviewing call patterns for efficiency; responds to "production down" problems 24 hour basis.

MAJOR WORKER CHARACTERISTICS:
Knowledge of computer science; one or more data base management systems depending upon specifics of position & their programming on one or more hardware platform depending upon specifics of position; COBOL &/or other high-level programming language; systems analysis & design. Skill in operation of computer terminal. Ability to deal with large number of variables & determine specific course of action; interpret variety of technical material; communicate verbally & in writing on technical & non technical matters; move hands/fingers easily to operate computer terminal.

(*)Developed after employment

MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:
Completion of undergraduate core program in computer science or associate degree in computer science; 5 yrs. exp. in systems analysis & design & computer programming using COBOL &/or other high-level language, of which 12 mos. was as team/project leader.

-Or completion of undergraduate core program in computer science or associate degree in computer information science; 3 yrs. exp. in design & maintenance of data base management system executing on one platform, of which 12 mos. was as team/project leader; 12 mos. exp. in computer programming using COBOL &/or other high-level programming language.

-Or 12 mos. exp. as Data Base Analyst 3, 64153S.

-Or equivalent of Minimum Class Qualifications For Employment noted above.

TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT: Not applicable.

UNUSUAL WORKING CONDITIONS: Work involves operation of computer terminal for long periods of time; requires significant amount of overtime often under high stress, rushed conditions.