**Requirements for the Application Under Development**

1. Project Scope
   * Develop a File Searcher (FS) application that enables automatic file searching based on specified file types and search patterns.
   * The application will be developed in Delphi 7 for Windows XP, Windows 7
   * FS will support local and network file systems, multiple languages, and various file types.
2. Main Goals
   * Create an efficient and user-friendly file searching tool.
   * Provide fast and accurate file search capabilities across multiple directories and file systems.
   * Support various file types and customizable search criteria.
   * Ensure compatibility with different Windows versions and network environments.
3. Criteria for Main Goals Achievement
   * Successful implementation of all specified functional and non-functional requirements.
   * Ability to search at a rate of no less than 500 files per second under specified conditions.
   * User ability to complete a basic file search operation in no more than 3 steps.
   * Successful operation on Windows XP, 7.
4. Risks
   * Performance degradation on older systems or with large file volumes.
   * Compatibility issues with certain antivirus software or file system types.
   * Potential security vulnerabilities when accessing network drives.
   * User interface complexity affecting usability for non-technical users.
5. System Characteristics
   * Programming Language: Delphi 7
   * Operating Systems: Windows XP, 7.
   * File Systems: Windows and UNIX (ext2, ext3, ext4, XFS)
   * Network Support: Ability to search network drives
   * User Interface: Graphical, resizable, with light and dark themes
6. User Requirements
   * Specify one or multiple starting directories for search.
   * Select file types to search for (Audio, Video, Office, Custom).
   * View search results with detailed file information.
   * Switch between supported languages at runtime.
   * Customize search parameters and file type categories.
7. Business Rules
   * FS must respect user system permissions when accessing files.
   * Logging of all search operations and activities.
   * Automatic termination of search operations exceeding one hour.
   * Exclusion of potentially infected files from search results.
8. Quality Attributes
   * Simple and intuitive UI.
   * Context-sensitive help system accessible with F1 key. b. Reliability
   * Stable operation for extended periods (MTBF of at least 100 hours).
   * Proper error handling and logging. c. Performance
   * Scanning rate of no less than 500 files per second (with disk speed ≥ 50 MB/s). d. Scalability
   * Handle up to 1 million files and directory structures up to 50 levels deep.
9. Limitations
   * Maximum log file size of 1 MB before archiving.
   * Search operation time limit of one hour.
   * Compatibility limited to specified Windows versions and file systems.
   * Performance dependent on hardware capabilities, especially disk speed.
10. Detailed Specifications
    * Start from specified directory or set of directories (up to 10).
    * Three types of files are available for search (selection is made manually or using the "What to search" combo box): i. Audio files (mp3, ogg, wav, mid) ii. Video files (avi, mpg, mpeg) iii. Office files (doc, docx, xls, xlsx)
    * Show File Name, Full Path, File Size, Creation Date-Time.
    * Display first frame screenshot for supported video formats (100x100 px JPEG). c. Language Support
    * Default support for English and Russian.
    * Ability to add additional languages
    * Log all search operations.
    * Display currently analyzed directory
    * Minimum window size of 800x600 pixels.
    * Display user-friendly error messages.
    * Option to send error reports to the development team.