

## Regular Expressions

Sr. No	Assignment Question
1.	<p>The management of the Orion Corporation is looking at storing the details of their employees in a standardized format in their database. This will facilitate the process of contacting employees in case of an emergency.</p> <p>The CEO of the company and a team of experts have chosen your company to provide a solution for the same. Consider yourself to be a part of the team that implements the solution for designing the application.</p> <p>Create an application using regular expressions to implement the solution. The application should consist of the following classes.</p> <ol style="list-style-type: none"> <li>1. Employee.java</li> <li>2. Administrator.java</li> </ol> <p>Each class has a specific purpose and functionality. The descriptions of each class are as follows.</p> <p><b>Employee.java</b>  The Employee class represents an actual employee record. It stores the following details of an employee.</p> <ul style="list-style-type: none"> <li>• name</li> <li>• address</li> <li>• phoneNumber</li> </ul> <p>These are the instance variables of the class. The Employee class also implements the following methods to standardize the address and phone number.</p> <ul style="list-style-type: none"> <li>• <b>String standardizeAddress():</b> This method is invoked to standardize the address of an employee. The method uses regular expressions to search for and replace the words, Street, Road and Drive with their abbreviations. These words may occur in the middle of the address or at the end of the address line. Use appropriate regular expressions to check for all possible conditions for searching and replacing text. This method will save valuable space for the system.</li> <li>• <b>String standardizePhone():</b> This method is invoked to standardize the phone numbers of the employees. A typical phone number is thought to be consisting of an area code a phone number and an extension number if any, separated by some kind of delimiters. This method searches and replaces the delimiters with hyphens.</li> </ul> <p><b>Administrator.java</b>  The Administrator class is the main class used to test the Employee class. It creates an instance of the Employee class and invokes the standardizeAddress() and standardizePhone() methods on it. The Administrator class accepts the details of an employee from the user and standardizes them. It then asks the user if the details of another employee are to be entered. The application exits when the user chooses not to enter any more records.</p>