Algorithms and Optimization for Big Data (AOBD)

BTech (ICT) Sem VI and MTech (CSE) Sem II

Winter 2017

Ahmedabad University

Marks: 40

Consider a scenario in which a company like LinkedIn wants to build a module for suggesting career progression paths to its registered users. When a user logs onto the platform, the platform reads user's profile and based on various parameters of this profile comes up with relevant suggestions on how the user should consider next set of skills to be acquired. Your aim, through this exam, is to design the following two modules:

1. A module that reads user's profile and suggest a career path – in terms of skillset -- to be acquired. [10]
2. A module in which user enters a career goal and based on this career goal and other related information the platform suggest a career path.[10]

Relevant user profile data is available at \\ietsrv02\Academic\Ratnik Gandhi\Candidate Profile Data. You are supposed to design modules for

a. Reading data and if required cleaning it.
b. Once data is available in relevant structured format, design modules 1 and 2 mentioned above.

Significantly unique solutions will be appreciated.[10]

Submission will be a report (maximum 3 page for diagrams/algorithm/results and other discussions) and GitHub code. A neat and clean algorithm with relevant proofs of correctness and its efficiency (recorded as a measure of computational complexity) will fetch more grades. [10]

Submit your solutions to Rahul on April 28, 2017 between 10am to 11am.