Request for Proposal

AI Driven Decision Making Using Real-Time Dashboards and Continuous Support in Data Analytics

Table of Contents

1.0 Introduction

1.1 Objectives of RFP

The Request for Proposal invites companies having requisite experience as mentioned in the document to participate and help the Government of Pakistan in fighting Corona by providing expertise in data analytics on a day to day basis. The scope of work requires commitment from the bidders to provide support in data analytics via a team of onsite and offsite resources with relevant technological support in providing real-time dashboards for the entire country.

2.0 Background

Coronavirus disease 2019 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The disease was first identified in December 2019 in Wuhan, the capital of China's Hubei province, and has since spread globally, resulting in the ongoing 2019–20 coronavirus pandemic. First confirmed case of what was then an unknown coronavirus was traced back to November 2019 in Hubei province. Common symptoms include fever, cough, and shortness of breath. Other symptoms may include fatigue, muscle pain, diarrhea, sore throat, loss of smell, and abdominal pain. The time from exposure to onset of symptoms is typically around five days but may range from two to fourteen days. While the majority of cases result in mild symptoms, some progress to viral pneumonia and multi-organ failure. As of 15 May 2020, more than 4.44 million cases have been reported across 185 countries and territories, resulting in more than 302,000 deaths. More than 1.59 million people have recovered.

The virus is primarily spread between people during close contact, [a] often via small droplets produced by coughing, [b] sneezing, or talking. While these droplets are produced when breathing out, they usually fall to the ground or onto surfaces rather than remain in the air over long distances. People may also become infected by touching a contaminated surface and then touching their eyes, nose, or mouth. The virus can survive on surfaces for up to 72 hours. It is most contagious during the first three days after the onset of symptoms, although spread may be possible before symptoms appear and in later stages of the disease.

3.0 The Approach

The Government of Pakistan has established a National Command and Operations Centre (NCOC) which is represented by military and civil representatives from all the provinces including AJK and GB. Eversince the menace, NCOC has been meeting up on a daily basis and reviews datasets to fine tune their strategy as the situation unfolds in terms of number of infections, mortality and criticality of the patients admitted in hospitals. Data is reported from multiple sources typically including but not limited to number of infections, demographics of patients, contact information of patients, hospitalization reports, occupancy of beds and ventilators, geo-location of work and home of infected patients, updates on relief programs and many others. Consolidation of data on such a vast scale requires AI driven dashboards and data sciences experts to analyse and formulate recommendations for decision makers.

4.0 Requirements

The RFP intends to engage a company which will automate routine analytics and reporting regime related to Covid-19 using a sustainable IT based system. The proposed system must have easy to use drag and drop interfaces to conduct analytics using Business Intelligence. The system must have provision to dynamically define dashboards based on privileges to access data. Same system will be leveraged to federal, provincial and district users with limitations on data they could see to be defined by the purchaser.

Following bare minimum parameters (subject to addition) are envisioned to be made part of the said dashboards.

1. Predictive Modeling and Simulation
    a. Outputs from the predictive model for:
        i. Number of cases
        ii. Number of deaths
        iii. Infection Prone Areas
    b. Hospital requirements
    c. Simulation modeling (small scale only, i.e. a maximum population of 10,000)
2. Comparative Modeling and Global Learning
    a. Global Spread Statistics (total cases, total deaths, total recoveries) and a heat map

b. Country risk ratings
c. Global growth trends
d. Global death trends
e. Global testing statistics
3. Pakistan's Analytics
    a. National Level
        i. Country growth trends by day and week
        ii. Country death trends by day and week
        iii. Pakistan's timeline for Corona
        iv. Pakistan's position with respect to other countries
        v. Growth comparisons with other countries
        vi. Worst-case and near-match scenarios
        vii. Hospitalization needs analysis
        viii. Mortality rate scenarios
    b. Provincial and City Level View
        i. Province wise growth trends
        ii. Province wise death trends
        iii. City wise growth trends
        iv. City wise death trends
        v. City wise predictions using exponential model
        vi. City risk index for all Pakistan

4.1 Provisioning of Servers

Hardware infrastructure will be made available by the purchaser based on sizing provided by the bidder in the response to RFP.

4.2 Delivery Timeline

Dashboards and automation of reports will be made available within 3 weeks of the award of contract.

4.3 Trainings

Within the 4th week of award of contract, the bidder must provide user and technical training to the individuals nominated by purchaser.

4.4 Customizations Support and Maintenance

Bidder will provide customizations, support and maintenance services for six months.

4.5 Project Handover

Upon expiration of the contract, the bidder will handover user files/operational manuals and source code of the system developed to the purchaser.

5.0 Instructions to Bidders

Bidders should follow the instructions set forth below in the submission of their proposal:

5.1 Language of the Proposal

The proposal prepared by the bidder, and all correspondence and documents relating to the proposal exchanged by the bidder and purchaser shall be written in the English language.

5.2 Cost of Proposal

The bidder shall bear all costs associated with the preparation and submission of the proposal, including but not limited to the possible cost of discussing the proposal with purchaser, making a presentation and/or any related travel. Purchaser will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the selection process.

5.3 Contents of Proposal

Proposals must offer the total requirement. Proposals offering only part of the requirement may be rejected.

5.4 Validity of Proposals

The offer outlined in the proposal must be valid for a minimum period of 90 calendar days after the closing date for submission of proposals.

5.5 Amendment in RFP

Purchaser may, at any time before the closing date, for any reason, whether on its own initiative or in response to a clarification requested by a (prospective) bidder, modify the RFP by written amendment.

5.6 Proposal Structure

5.6.1 Executive Summary

The bidder's proposal must be accompanied by an Executive Summary introducing the proposed solution and approach / methodology.

5.6.2 Information about Bidders

Bidders must provide the following information.

Information Required
1. Company Information
1.1 Corporate information
1.1.1 Company mission statement (including profit or not for profit status)
1.1.2 Service commitment to customers and measurements used
1.1.3 Accreditations
1.1.4 Organization structure
1.1.5 Geographical presence
1.1.6 Declared financial statements for the past (2) two years
1.2 Legal Information
1.2.1 History of Bankruptcy
1.2.2 Pending major lawsuits and litigations in excess of USD 100,000 at risk
1.2.3 Pending Criminal/Civil lawsuits

2. Experience and Reference Contact Information
2.1 Relevant Contractual relationships
2.1.1 Relevant Contractual projects (with other Contractors)
2.2 Relevant Project Names (list and provide detailed examples of relevant experience gained within the past five years of the issuance of this RFP that demonstrate the Contractor's ability to satisfactorily perform the work in accordance with the requirements of this RFP).
2.2.1 Project Description
2.2.2 Status (under development / implemented)
2.2.3 Reason for relevance (provide reason why this project can be seen as relevant to this project)
2.2.4 Roles and responsibilities (list and clearly identify the roles and responsibilities for each participating organization)
2.2.4.1 Client's Role and Responsibility: Inputs from beneficiary
2.2.4.2 Contractor's Role and Responsibility: role in project
2.2.4.3 Third party Contractors' Role and Responsibility
2.2.5 Team Members (indicate relevant members of the team that will also be used for this project)
3. Staffing information
3.1 Number and Geographical distribution of staff
3.1.1 Staff turnover rate for the past three years
3.2 Staff dedicated to the Project
3.2.1 Name and CV of each team member
3.2.2 Structure of the team, and role of each member in the project
3.2.3 Time dedicated to the project
3.2.3 Contingency plans in the event of a vacancy

5.6.3 Proposed Solution

The proposed solution should follow and specify the below listed generic steps for framing the overall project.

Clarification of detailed features and functionality
1. Mockups of input and output user interface
2. Approach for the development of core algorithms
3. Description of use cases
4. UAT Methodology
5. Overall timelines

5.6.4 Financial Proposal and Price Table

The financial proposal should include a listing and costing of all activities. The price quoted must be inclusive of taxes.

Description	Cost in PKR (OneTime)
Development of System	
Description	Cost in PKR (Monthly)
Maintenance and Support	
Grand Total	Development of System + Monthly Support and Maintenance Cost * 6

The payment will be made within 30 days after receiving the invoice per following schedule.

Milestones	Payment
Business Requirements Document - Sign Off	20% of Development and Deployment Cost
UAT	40% of Development and Deployment Cost
Go-LIVE	40% of Development and Deployment Cost
Support	To be paid on monthly basis after successful implementation of project

6.0 Important Dates

No later than 10/06/2020 the bidders shall complete and return by email to NIH at the following address: Office Executive Director edofficenih@gmail.com