

### Mini Project Topics for BTech(CSE with Cloud Computing) – 3<sup>rd</sup> Sem Students

Note1: Choose any one topic

Note2: Contact the Resource Person only if you need advice on things like dataset, suitable tools etc.

Resource persons will NOT advice you in any way in the coding/implementation part. Mini Project is purely a self-study and self-implementation topic.

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| SI No 1-5, Resource Person: Dr. Preeti Mishra |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 1.                                            | <b>Cloud-Based Student Information Chatbot</b><br>Details: Cloud based student information Chatbot system is an artificial algorithm that analyzes the student's queries and messages. This system has a built artificial intelligence to answer the query of the student. The answers are appropriate to the user's queries, if the user find his answer to be invalid, he may select the invalid answer option button which will notify the admin. Admin can view invalid through portal via login. System allows admin to delete the invalid answer or to add a specific answer of that equivalent question. To answer to the student query, the Chatbot system retrieves the answer from the database which is stored in the cloud. The Chatbot system uses a specific keyword to retrieve the answers from the database. There is no format for the student to follow while asking any question in the Chatbot. The students can put up any query related to college activities through the system. This system replies to the user with Graphical user interface which implies that as if a real person is talking to the student. The system helps the student not only to get their queries answered but also to be updated with the college activities. Chatbot can be hosted in in any cloud platform. |
| 2.                                            | <b>Cloud Based Online Blood Bank System</b><br>Details: The software system is an online blood bank management system that helps in managing various blood bank operations effectively. The project consists of a central repository containing various blood deposits available along with associated details hosted on cloud server. These details include blood type, storage area and date of storage. These details help in maintaining and monitoring the blood deposits. The project is an online system that allows to check whether required blood deposits of a particular group are available in the blood bank efficiently using cloud server. Moreover the system also has added features such as patient name and contacts, blood booking and even need for certain blood group is posted on the website to find available donors for a blood emergency. This online system can be hosted in any cloud platform and supported by an Sql database to store blood and user specific details.                                                                                                                                                                                                                                                                                                         |
| 3.                                            | <b>Malicious URL Detection using Machine Learning</b><br>Details: Malicious URL is a typical and genuine threat to cybersecurity. A Malicious URL has an assortment of spontaneous content in the form of phishing, spam in order to launch attacks. Innocent users visit such web sites move toward becoming casualties of various sorts of scams, including monetary loss, theft of private information (identity, credit-cards, etc.). It is essential to identify and follow up on such dangers in an opportune way. You have to design a system to detect such malicious URLs. The dataset of benign and malicious URLs can be collected from kaggle such as <a href="https://www.kaggle.com/siddharthkumar25/detect-malicious-url-using-ml?select=urldata.csv">https://www.kaggle.com/siddharthkumar25/detect-malicious-url-using-ml?select=urldata.csv</a> or other online sources for dataset.                                                                                                                                                                                                                                                                                                                                                                                                           |
| 4.                                            | <b>Develop a cloud based system to address any issue related to COVID-19 such as quarantine monitoring system, patient data management system, tracking system, COVID-19 data</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

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| analysis system for Uttarakhand (Collect information from <a href="https://covidindia.org/uttarakhand/">https://covidindia.org/uttarakhand/</a> ) etc...                                                                                                                                                                                                                                      |
| <p>5. Cloud based E-learning System<br/> Details: In the Cloud computing infrastructure, the sharable e-Learning platform can be developed to provide a good learning environment for learners. You can incorporate the simple and advanced features to provide the best learning facility to the people. It should address some of the limitations of the existing e learning platforms.</p> |
| SI No 6-10, Resource Person: Sarishma                                                                                                                                                                                                                                                                                                                                                         |
| 6. Cloud based student information Chatbot for university query resolution                                                                                                                                                                                                                                                                                                                    |
| 7. Cloud based attendance system or e-pass system or ticket generation                                                                                                                                                                                                                                                                                                                        |
| 8. Cloud based library at university level - creating an inventory and hosting                                                                                                                                                                                                                                                                                                                |
| 9. Dynamic resource allocation algorithm using CloudSim simulator                                                                                                                                                                                                                                                                                                                             |
| 10. Cloud based smart parking system or traffic management system                                                                                                                                                                                                                                                                                                                             |