**BALLARI INSTITUTE OF TECHNOLOGY AND MANAGEMENT, BALLARI**

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

**Project CO - PO Mapping**

**ACADEMIC YEAR 2022 - 23**

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| **Student Name** | **USN** | **Guide Name** | **Project Title** |
| Thimmalapuram Srujana | 3BR19CS167 | Mr. C K Srinivas | A Methodology to Generate a Fun Size URL Using Django Framework |

**COURSE OUTCOMES (CO’S)**

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| Course Outcome Cox | Description of Course Outcomes |
| CO1 | **Understanding** of URL shortening techniques and its importance |
| CO2 | **Provide** user authentication and security considerations. |
| CO3 | **Design** and implement technique to shorten URL and validate them. |
| CO4 | **Write** technical project report by following professional ethics. |
| CO5 | **Create** and publish the outcome of the thesis into an article. |

**CO - PO MAPPING**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **CO-PO** | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
| CO1 | 2 |  |  | 1 |  | 1 |  | 1 |  |  |  |  |  |  |
| CO2 |  |  |  | 1 |  | 1 |  |  |  |  |  |  |  |  |
| CO3 |  |  | 3 |  | 1 |  | 1 |  | 2 |  | 1 |  |  |  |
| CO4 |  |  |  |  |  |  |  |  |  | 3 |  | 1 | 1 |  |
| CO5 |  |  |  |  |  |  |  | 1 | 1 | 2 |  | 1 |  | 1 |

Signature of Guide

**PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES**

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| **PO1: Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.  **PO2: Problem analysis:** Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.  **PO3: Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.  **PO4: Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.  **PO5: Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.  **PO6: The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal & cultural issues, and the consequent responsibilities relevant to the professional engineering practice.  **PO7: Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.  **PO8: Ethics:** Apply ethical principles and commit to professional ethics & responsibilities and norms of the engineering practice.  **PO9: Individual and teamwork:** Function effectively as an individual, and as a member or leader in diverse teams, and in multi-disciplinary settings.  **PO10: Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.  **PO11: Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.  **PO12: Life-long learning:** Recognize the need for and have the preparation and ability to engage in independent & life-long learning in the broadest context of technological change. Computer Science. |
| **PSO1:** understand the principles, architecture and organization of computers, embedded systems, and computer networks.  **PSO2:** To develop software applications using advanced technologies to cater the growing needs of industry. |