### A.S.D.GOVT. DEGREE COLLEGE FOR WOMEN (A)

(Re-Accredited with 'B' Grade by NAAC) (Affiliated to Adikavi Nannaya University) Jagannaickpur, Kakinada.

### DEPARTMENT OF COMPUTER SCIENCE



## **GUEST LECTURE**

2023-2024

### A.S.D.GOVT. DEGREE COLLEGE FOR WOMEN (A)

JAGANNAICKPUR, KAKINADA



## DEPARTMENT OF COMPUTER SCIENCE

2023-2024

### **GUEST LECTURE**

*B*y

### Dr.K.V.Sobharani M.C.A., Ph.D.

Lecturer in Computer Applications, Govt. Degree College, Ramachandrapuram

Date: 12-06-2024

**Topic: Normalization** 

Conducted by

N.NAGA SUBRAHMANYESWARI, LECTURER IN COMPUTER SCIENCE

K. SURYA LAKSHMI, GUEST LECTURER IN COMPUTER SCIENCE

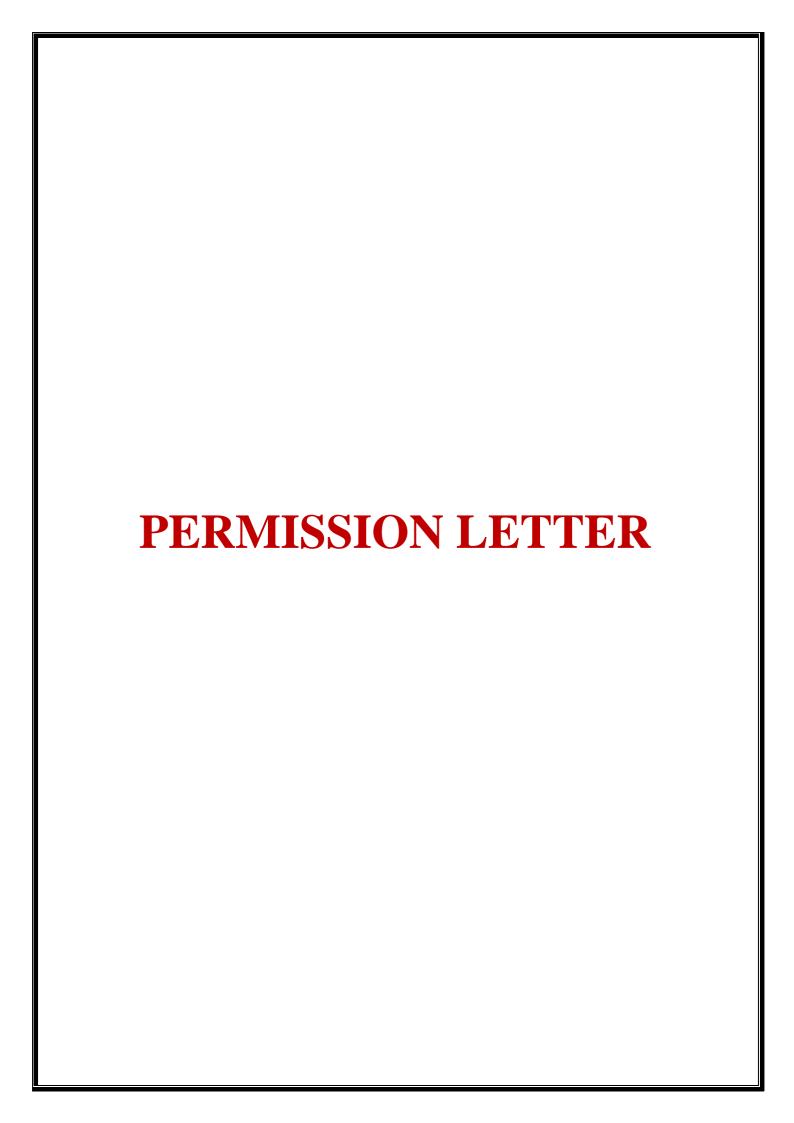
P.SVD BALLABAMBA, GUEST LECTURER IN COMPUTER APPLICATIONS

### A.S.D.GOVT. DEGREE COLLEGE FOR WOMEN (A), KAKINADA

# DEPARTMENT OF COMPUTER SCIENCE Activity Register 2023-2024

| Date  | 12/06/2024   |
|---|--|
| Conducted through (DRC/JKC/ELF/NCC/NSS/ Departments etc.)       | Department of Computer Science   |
| Nature of Activity<br>(Seminar/Workshop/Extn.<br>Lecture etc.,) | Guest Lecture  |
| Title of the Activity   | Normalization  |
| Name of the Department/Committee                                | Computer Science   |
| Details of Resource Persons (Name, Designation etc.,)           | <b>Dr.K.V.Sobharani</b> Lecturer in Computer Applications, Govt. Degree College, Ramachandrapuram.   |
| No.of students participated                                     | 25   |
| Brief Report on the activity                                    | To enable the students to manage data using normal forms.  |
| Name of the Lecturers who Planned & conducted the activity      | N.Naga Subrahmanyeswari, Lecturer in Computer Science K. Surya Lakshmi, Guest Lecturer in Computer Science P.SVD Ballabamba, Guest Lecturer in Computer Applications |
| Signature of the Dept.In-Charge/<br>Convener of the Committee   | N.N.S. ESWARI  BLCHARGE  DEPT OF COMPLITER SCIENCE  SDROVI DEGREE CALEXE MINISTRADIOUS  KAKINADA   |
| Signature of the Principal                                      | A.S.D.GOVT.DEGREE COLLEGE (M) AUTONOMOUS KAKINADA  |
| Remarks   |  |

<sup>(\*</sup> Brief Report of the activity has to be submitted along with evidences(Correspondence, Photographs, Paper Clippings, and Student Feedback etc). A separate record has to be prepared for each Academic year. The College Activity Register shall be with the Principal. All activities have to be recorded and the serial no of the activity has to be mentioned on the report of the activity.)



Kakinada, Date: 07-06-2024.

#### To,

Dr. V.Anantha Lakshmi, Principal, A.S.D. Govt. Degree College for Women (A), Kakinada.

#### From,

N.Naga Subrahmanyeswari, Incharge - Department of Computer Science & Computer Applications, A.S.D. Govt. Degree College for Women (A), Kakinada.

**Sub:** Request to organize Guest Lecture on "Normalization" for III B.Com.(CA) on 12-06-2024 -Reg. Respected Madam,

The Department of Computer Science wishes to organize an Guest Lecture on "Normalization" for III B.Com.(CA) on 12-06-2024, and the Resource Person is Dr.K.V.Sobharani, Lecturer in Computer Applications in GDC Ramachandrapuram. This activity shall enhance the knowledge of the Normalization. Kindly do the needful.

Thanking you, Madam.

Yours faithfully,

N.N.S. ESWOOL

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DEPT OF COMPUTER SCIENCE

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KAKINADA

### A.S.D.GOVERNMENT DEGREE COLLEGE FOR WOMEN (A)

Affiliated to Adikavi Nannaya University Jagannaickpur, Kakinada.

### DEPARTMENT OF COMPUTER SCIENCE

### **CIRCULAR**



Date: 07-06-2024

The Department of computer Science wishes to organize a Guest Lecture on "Normalization" on 12-06-2024 in RB IV for III B.Com.(CA) students to acquire basic knowledge about Normalization and enhance their skills.

DEPT. OF COMPUTER SCIENCE

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KAKINADA

**In-Charge of the Department** 

A.S.D.GOVT.DEGREE COLLEGE (M. Autonomous Kakinada

**Principal** 

### A.S.D.GOVT.DEGREE COLLEGE FOR WOMEN (A), KAKINADA

#### DEPARTMENT OF COMPUTER SCIENCE

### **GUEST LECTURE**



NAME OF THE GUEST: Dr.K.V.Sobharani, M.C.A., Ph.D.

Lecturer in Computer Applications,

Govt. Degree College, Ramachandrapuram

**TOPIC** : Normalization

**DATE** : 12-06-2024

**VENUE** : **RB**-IV



IN-CHARGE OF THE DEPARTMENT

### A.S.D.GOVT.DEGREE COLLEGE FOR WOMEN (A) KAKINADA

#### DEPARTMENT OF COMPUTER SCIENCE

### **INVITATION**



The Department of Computer Science wishes to arrange A Guest Lecture on 12-06-2024 at 12.00 P.M. in RB-4

**Subject: Database Management System Topic: Normalization** 

BY

Dr.K.V.Sobharani, M.C.A., Ph.D. Lecturer in Computer Applications, Govt. Degree College, Ramachandrapuram.

N.N.S. ESWOOL

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DEPT OF COMPUTER SCIENCE

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KAKINADA

**In-Charge of the Department** 

PRINCIPAL

A.S.D.GOVT.DEGREE COLLEGE (M. AUTONOMOUS
KAKINADA

**Principal** 

### A.S.D.GOVT. DEGREE COLLEGE FOR WOMEN(A)

#### DEPARTMENT OF COMPUTER SCIENCE

### **GUEST LECTURE**

A Guest Lecture is conducted for the Students of III B.Com (C.A.)

Dr.K.V.Sobharani M.C.A., Ph.D. Name of the Guest

Lecturer in Computer Applications,

Govt. Degree College, Ramachandrapuram.

| TOPIC         | VENUE | DATE       | TIME                   | MODE OF<br>DELIVERY |
|---------------|-------|------------|------------------------|---------------------|
| Normalization | RB-IV | 12-06-2024 | 12:00 PM TO<br>1:00 PM | Offline             |

### **Signatures of the Lecturers Attended:**

N. N.S. Eswasi K. S. Lakshmi 1.

3.

A.S.D.GOVT.DEGREE COLLEGE (M AUTONOMOUS KAKINADA **Signature of the Principal** 

## A.S.D.GOVT. DEGREE COLLEGE FOR WOMEN(A) KAKINADA

#### DEPARTMENT OF COMPUTER SCIENCE

### **GUEST LECTURE**

**Topic: Normalization** 

**Date:** 12-06-2024 **Venu:** RB-IV **Time:** 12PM – 1 PM

| S.No. | Reg.No  | Name of the Student     | Class          |
|-------|---------|-------------------------|----------------|
| 1     | 2123001 | RATCH JOGESWARI         | III B.Com.(CA) |
| 2     | 2123002 | DASARI MADHUSRI         | III B.Com.(CA) |
| 3     | 2123004 | KUNCHAM SNEHALATHA      | III B.Com.(CA) |
| 4     | 2123005 | NAGARABOINA MOUNIKA     | III B.Com.(CA) |
| 5     | 2123006 | PALEPU DIVYA            | III B.Com.(CA) |
| 6     | 2123007 | PINAPOTHU BHAVANI       | III B.Com.(CA) |
| 7     | 2123008 | TALABHATHULA MAHA       | III B.Com.(CA) |
| 8     | 2123009 | THANDRA LAKSHMI SRAVANI | III B.Com.(CA) |
| 9     | 2123010 | ARAVA ANUSHA            | III B.Com.(CA) |
| 10    | 2123011 | BALLA SIRISHA           | III B.Com.(CA) |
| 11    | 2123012 | CHAPALA PUSHPANJALI     | III B.Com.(CA) |
| 12    | 2123013 | DARAKONDA KEERTHANA     | III B.Com.(CA) |
| 13    | 2123014 | DEVU SANDHYA RANI       | III B.Com.(CA) |
| 14    | 2123015 | GAMPALA MUNNI           | III B.Com.(CA) |
| 15    | 2123017 | GEDDADD SAI PAVANI      | III B.Com.(CA) |
| 16    | 2123021 | JONNADA ANUSRI          | III B.Com.(CA) |
| 17    | 2123022 | KAVATARAPU LAKSHMI DEVI | III B.Com.(CA) |
| 18    | 2123023 | MATCHA MOUNIKA          | III B.Com.(CA) |
| 19    | 2123024 | PALLAPROLU ANJALI       | III B.Com.(CA) |
| 20    | 2123025 | PALLETI MANEESHA        | III B.Com.(CA) |
| 21    | 2123026 | PEYYALA SANDHYA         | III B.Com.(CA) |
| 22    | 2123027 | REDDY HEMA LATHA        | III B.Com.(CA) |
| 23    | 2123028 | REVU ANUSHA             | III B.Com.(CA) |
| 24    | 2123029 | SARAKANAM VIJAYA DURGA  | III B.Com.(CA) |
| 25    | 2123036 | YELLEM SARVANI          | III B.Com.(CA) |

#### REPORT ON THE ACTIVITY

**Dr.K.V.Sobharani,** Lecturer in Computer Applications, Government Degree College Ramachandrapuram, has delivered a Guest Lecture on "Normal Forms" to the students of II B.Sc. (M.P.Cs) and II B.Com. (C.A) on 12-06-2024 from 12P.M to 1P.M. Students attended the Guest Lecture in RB-4.She expressed her views on the following topics

#### What is Normalization?

- o Normalization is the process of organizing the data in the database.
- Normalization is used to minimize the redundancy from a relation or set of relations. It
  is also used to eliminate undesirable characteristics like Insertion, Update, and Deletion
  Anomalies.
- o Normalization divides the larger table into smaller and links them using relationships.
- The normal form is used to reduce redundancy from the database table.

#### Why do we need Normalization?

The main reason for normalizing the relations is removing these anomalies. Failure to eliminate anomalies leads to data redundancy and can cause data integrity and other problems as the database grows. Normalization consists of a series of guidelines that helps to guide you in creating a good database structure.

#### Data modification anomalies can be categorized into three types:

- Insertion Anomaly: Insertion Anomaly refers to when one cannot insert a new tuple into a relationship due to lack of data.
- Deletion Anomaly: The delete anomaly refers to the situation where the deletion of data results in the unintended loss of some other important data.
- Updatation Anomaly: The update anomaly is when an update of a single data value requires multiple rows of data to be updated.

#### Types of Normal Forms:

Normalization works through a series of stages called Normal forms. The normal forms apply to individual relations. The relation is said to be in particular normal form if it satisfies constraints.

#### Following are the various types of Normal forms:

|                           | 1NF                              | 2NF   | 3NF                                   | 4NF                                     | 5NF                             |
|---------------------------|----------------------------------|---|---------------------------------------|---|---------------------------------|
| ation                     | R                                | R <sub>11</sub>                               | R <sub>21</sub>                       | R <sub>31</sub>                         | R <sub>41</sub>                 |
| of Rela                   |                                  | R <sub>12</sub>                               | R <sub>22</sub>                       | R <sub>32</sub>                         | R <sub>42</sub>                 |
| osition                   |                                  |   | R <sub>23</sub>                       | R <sub>33</sub>                         | R <sub>43</sub>                 |
| Decomposition of Relation |                                  |   |                                       | R <sub>34</sub>                         | R <sub>44</sub>                 |
| S                         |                                  |   |                                       |   | R <sub>45</sub>                 |
| Conditions                | Eliminate<br>Repeating<br>Groups | Eliminate Partial<br>Functional<br>Dependency | Eliminate<br>Transitive<br>Dependency | Eliminate<br>Multi-values<br>Dependency | Eliminate<br>Join<br>Dependency |

| Normal Form | Description   |
|-------------|---|
| INF         | A relation is in 1NF if it contains an atomic value.  |
| 2NF         | A relation will be in 2NF if it is in 1NF and all non-key attributes are fully functional dependent on the primary key. |
| 3NF         | A relation will be in 3NF if it is in 2NF and no transition dependency exists.  |
| BCNF        | A stronger definition of 3NF is known as Boyce<br>Codd's normal form.   |
| 4NF         | A relation will be in 4NF if it is in Boyce Codd's normal form and has no multi-valued dependency.                      |
| 5NF         | A relation is in 5NF. If it is in 4NF and does not contain any join dependency, joining should be lossless.             |

### **Advantages of Normalization**

- o Normalization helps to minimize data redundancy.
- o Data consistency within the database.
- o Much more flexible database design.

### **Disadvantages of Normalization**

- You cannot start building the database before knowing what the user needs.
- The performance degrades when normalizing the relations to higher normal forms, i.e., 4NF, 5NF.



Students enthusiastically listening to the Guest Lecture

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### **DEPARTMENT OF COMPUTER SCIENCE**

#### FEEDBACK ON THE GUEST LECTURE

| 1. | How satisfied are you with the overall quality of the lecture?          |
|----|---|
|    | A. Very Satisfied   |
|    | B. Satisfied  |
|    | C. Neutral  |
|    | D. Unsatisfied  |
| 2. | Did the lecture enhance your knowledge on the topic?                    |
|    | A. Strongly Agree   |
|    | B. Agree  |
|    | C. Neutral  |
|    | D. Disagree   |
| 3. | How relevant was the content of the lecture to your curriculum needs?   |
|    | A. Extremely Relevant   |
|    | B. Very Relevant  |
|    | C. Moderately Relevant  |
|    | D. Slightly Relevant  |
| 4. | Do you feel the lecture provided practical insights that you can apply? |
|    | A. Strongly Agree   |
|    | B. Agree  |
|    | C. Neutral  |
|    | D. Disagree   |
| 5. | Any additional comments or suggestions?                                 |

**Signature of the Participant**