Department of Computer Science and Engineering
Academic Year 2022 – 2023 (Odd Semester)

Degree, Semester & Branch: VII Semester B.E Computer Science and Engineering
Course Code & Title: CS8792 Cryptography and Network Security
Name of the Faculty member (s): Dr.R.Venkatesh, AP (SG)/CSE
Date: 20.10.2022

Innovative Practice Description

- **Unit / Topic: Unit IV / Hash Function, Authentication and Integrity**
- **Course Outcome:** CO4
- **Topic Learning Outcome:** TLO19
- **Activity Chosen:** Cross Word Puzzle
- **Justification:**

  A crossword puzzle is a fun word puzzle activity that helps learners understand constructs. Crossword puzzles allow students to evaluate their level of knowledge and identify areas for further study in a creative manner. Thus, incorporating crossword puzzles into the Engineering field's teaching knowledge base can be a novel way to engage students in learning and assist them in acquiring knowledge and skills. It is a game, so it is a more enjoyable activity than a regular multiple choice questions test. The topic chosen to perform this cross word puzzle activity is Hash Function, Authentication and Integrity. This activity was very helpful in remembering the concept in an enjoyable manner.

Time Allotted for the Activity:

- **Procedure of the Implementation:**

  Materials for the Activity:

  - The materials for the preparation of the students were shared two days before through LMS Canvas. Including the material, students were asked to refer to the web content also.

  Topic Delivery:

  - The main objective of the cross word puzzle activity is that each studsent will learn and remember this concepts and the question and answer discussion will helps the other members learn about the topic as well.

Details of the Implementation

- First of all teacher generate crossword puzzle by using education.com webapplication tool, it consists of 10 questions (Across-4 questions, Down-6 questions).
- Individual Crossword puzzle sheets are provided to each student.
- The students answered the questions in the first 15 minutes of the class.
- The Figure 1 shows the Cross Word Puzzle Activity worksheet and Figure 2 shows the activity done by the students.
- The answer scripts are collected and evaluated by other group members.
- Finally teacher and students discussed the answers of all questions at the end of the activity.

- **CO – PO / PSO mapping:**

CO	PO1	PO2	PO3	PO4	PO4	PO8	PO9	PO12
CO1	3	3	3	1	1	1	1	2

(1 – Low 2 – Moderate 3 – High)

- **Images / Screenshot of the practice:**

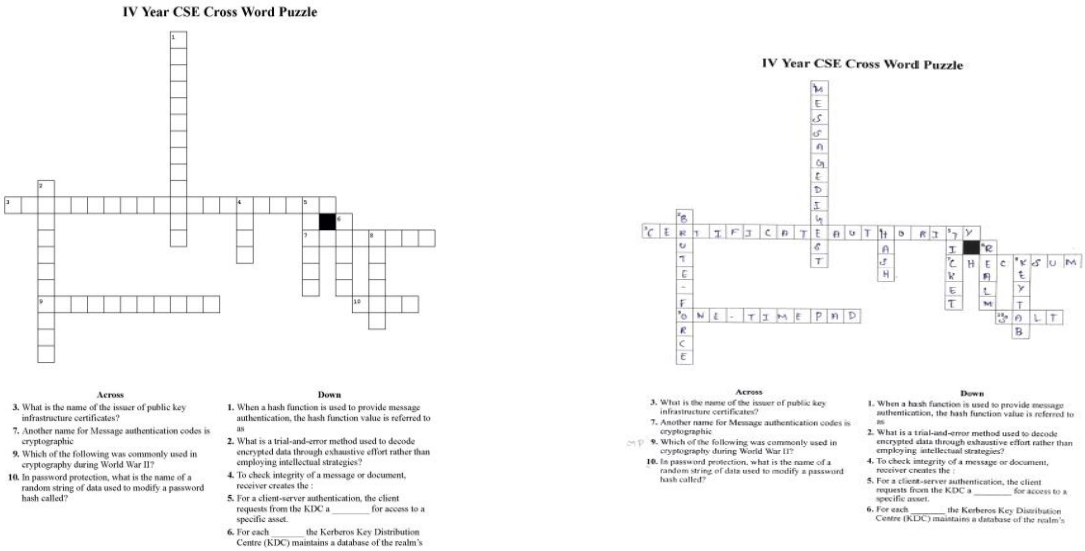

Figure 1 – Cross Word Puzzle Activity Work Sheet


Figure 2 - Activity done by the Students

Reflective Critique:

- ***Feedback of practice from students and other stakeholders:***
  - The material shared with us helped a lot with slide preparation.
- ***Benefit of the practice:*** (E.g.: Outcome attainment would have increased due to innovative practice over conventional practice)
  - Because of a creative approach rather than traditional practice, outcome achievement might have improved.
  - Due to this activity the students should be able to recall information easily and improve their collaborative learning skills.
  - The activity helped the students do their roll better.
  - The exercise is planned for the students, and it includes interactions and discussions that help students better understand the topics.
- ***Challenges faced in implementation:***
  - Some of the students are difficult to search the answer from text book
  - Actually planned within 15 minutes but it is extended to 20 Minutes (5 minutes delay)

References:

- http://www.classtools.net/crossword/
- https://www.activityvillage.co.uk/crosswords
- adlit.org, "Adolescent Literacy", 2019. [Online]. Available: http://www.adlit.org/strategies/23277/ [Accessed: 23.01.2020]
- Reading Books - https://www.readingrockets.org/strategies/think-pair-share
- prodigygame.com, "active-learning-strategies", 2019. [Online]. Available: https://www.prodigygame.com/blog/active-learning-strategies-examples/

Signature of Faculty Member **HOD-CSE**