Criterion 7 – Institutional Values and Best Practices

7.2 Best practices:

7.2.1 Describe at least two institutional best practices successfully implemented

Practice-1:

1. **Title of the Practice: Innovative Teaching and Learning practices**

2. **Objectives of the Practice:**

- Foster a dynamic and engaging learning environment that stimulates critical thinking and creativity among students.
- Integrate modern pedagogical methods to enhance the overall effectiveness of teaching and learning.
- Encourage faculty members to explore and implement innovative strategies to address diverse learning styles.

3. **The Context:**

- In the ever-evolving landscape of education, it is crucial to adapt and implement innovative practices in teaching and learning. This practice aims to revitalize our educational approach, ensuring that students are well-prepared for the challenges of the future.

4. **The Practice:**

The institution has initiated various innovative teaching and learning practices, including:

- Integration of technology: incorporating interactive online platforms, virtual simulations, and multimedia resources to enhance learning experiences.
- Project-based learning: encouraging students to apply theoretical knowledge to real-world scenarios through hands-on projects.

- Flipped classroom model: Inverting the traditional teaching model by delivering instructional content outside the classroom and using class time for interactive discussions and activities.

5. **Evidence of Success:**
   - Improved student engagement and participation levels in classes.
   - Positive feedback from students, indicating increased interest and understanding of course materials.
   - Higher retention rates and academic performance among students exposed to innovative teaching methods.

6. **Problems encountered and Resources Required:**

Problems encountered:

- Resistance to change among some faculty members.
- Initial learning curve for both faculty and students in adapting to new technologies and methodologies.

Resources Required:

- Professional development programs for faculty to enhance their skills in innovative teaching methods.
- Investment in advanced educational technology and resources.
- Ongoing support and mentorship to address challenges and ensure successful implementation.

Principal
International Institute of Information Technology
Hinjawadi, Pune - 411057

Hope Foundation's

International Institute of Information Technology, Pune

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION

Innovative Practices in Teaching-Learning

Flip Classroom Activity

Academic Year and Semester: AY 2022-23 Sem I
Branch: E&TC **Class: TE**
Subject: Elective-I: Fundamentals of JAVA Programming
Subject code: 304185C **Day and Date: Tuesday, 18/10/2022**

Objectives of the activity:

a) To adapt innovative teaching-learning methodologies in order to optimize the involvement of all learner types.
b) To comprehend the features of JAVA in file handling.
c) In order to promote self-learning.
d) To develop "Higher Order Thinking Skills" in order to facilitate successful teaching and learning.

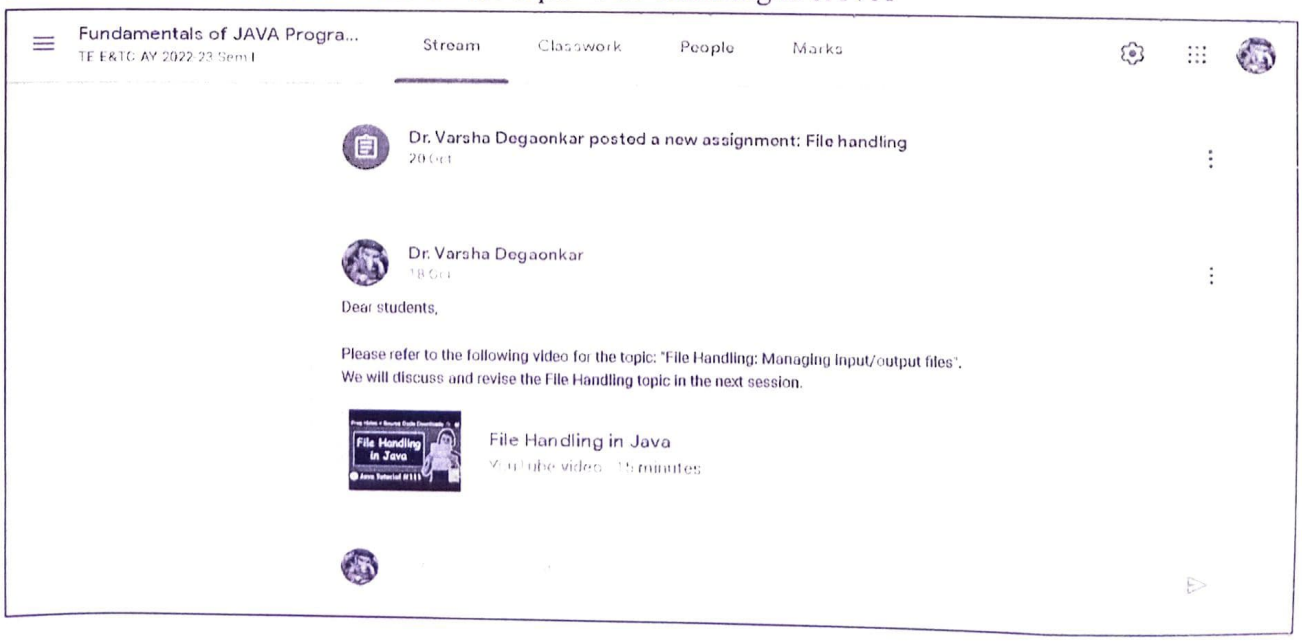
The learning outcomes of the activity:

After completion of the activity, students will be able to:

a) Illustrate the features of JAVA in file handling. [Application]
b) Demonstrate their Self-learning skill. [Application]

No. of Students attended: 61

List of resources shared: Video on the topic "File Handling in JAVA"



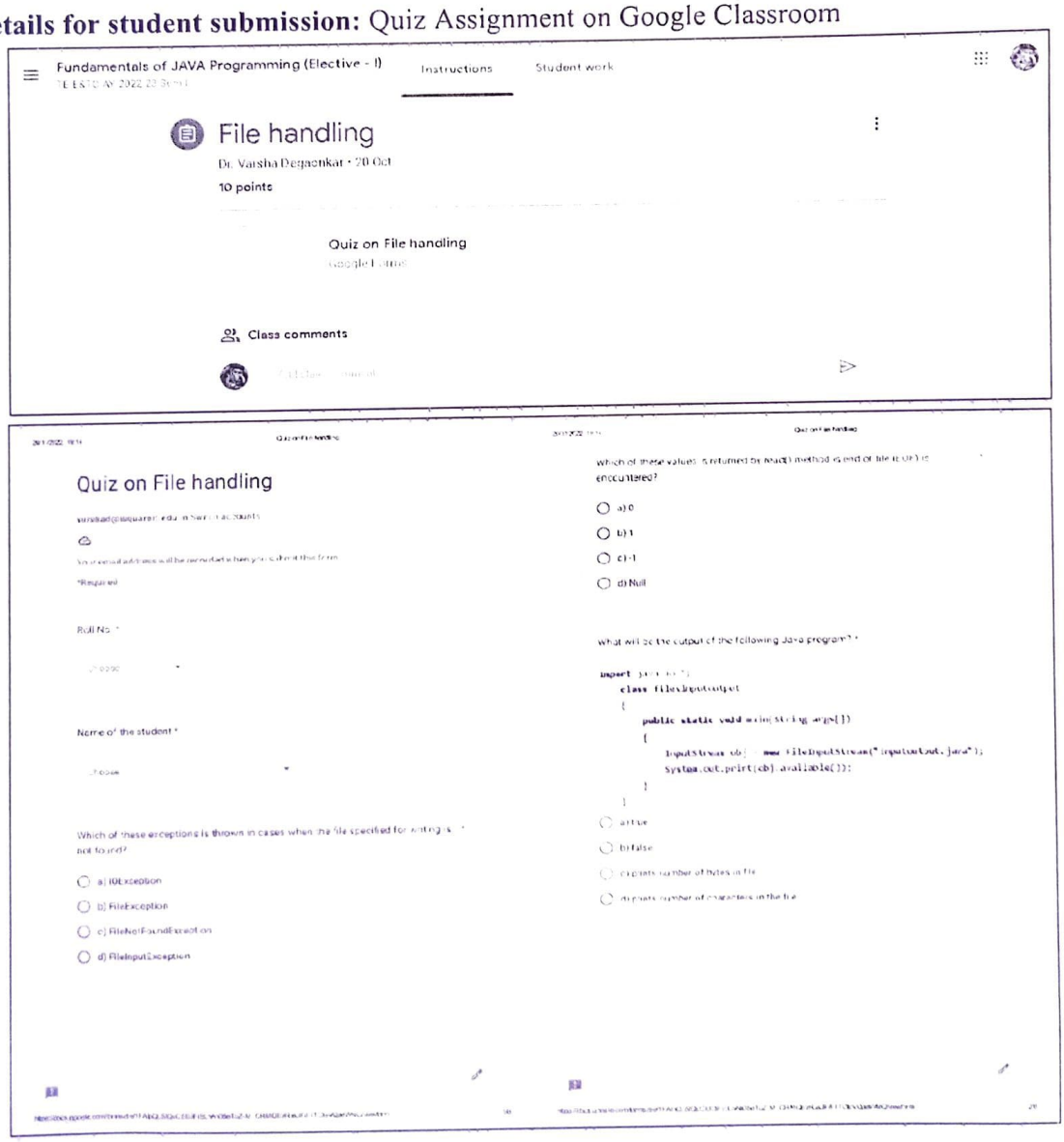
Conduction platform: Google Classroom

Assessment tool: Direct: Quiz on topic File handling in Java (5 questions of 2 marks each)

Steps followed for effective implementation:

1) Students are requested to watch the Video which is posted on Google Classroom.
2) The goal is for students to spend more time in class working to develop Higher Order Thinking Skills (HOTS). The teacher will guide the students to practice the contents most effectively through some assessments.
3) Quiz is conducted in the next session on the topic to check the understanding of students.
4) Later the topic is revised in the session.

Details for student submission: Quiz Assignment on Google Classroom



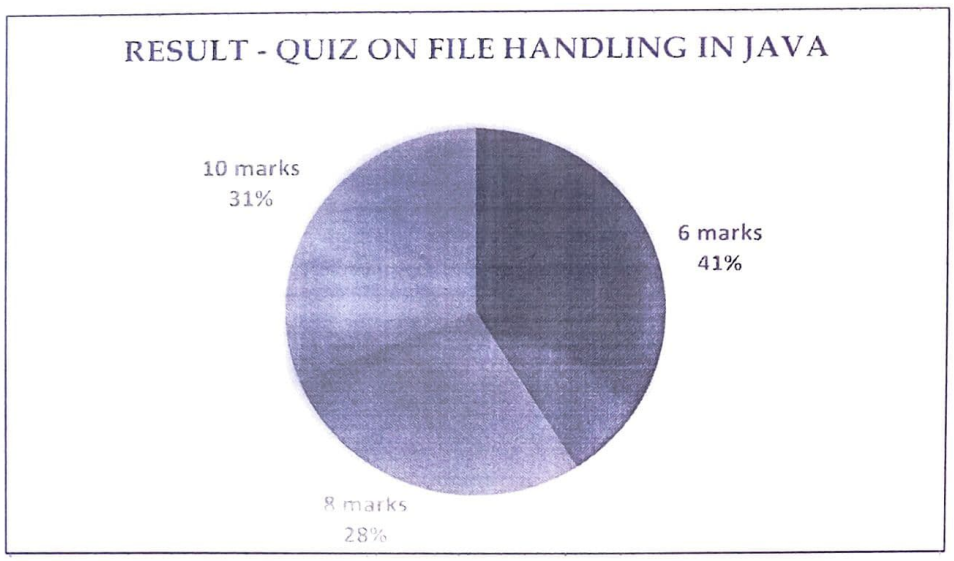
Process followed for performance Evaluation:

- A Quiz on the topic "File handling in Java" with 5 questions is floated.
- Each question in the quiz carried 2 marks.
- Following is the list of students who attempted the quiz with marks.

Roll No.	Name of the student	Marks		Roll No.	Name of the student	Marks
TE22101	ALTE SHRUTI VILAS	8		TE22133	MANDLK GAURI PRAVIN	6
TE22102	ANKIT RAJ SHARMA	10		TE22134	MANE NEHA SAMBHAJI	10
TE22103	APURVA SANTOSH APUNE	8		TE22135	MISHRA YASH MANOJ	10
TE22104	ARGULWAR AJAY MANOJ	6		TE22136	MRUNMAI PRAVIN KULKARNI	8
TE22105	ATHARVA SAGAR CHATUR	6		TE22137	MUJAWAR SALMAN BABULAL	6
TE22106	BARAVKAR PIYUSH SURESH	8		TE22138	NADARGE SAKSHI ANIL	6
TE22107	BARI SAKSHI SUNIL	6		TE22139	PARKHE KHUSHI KIRAN	8
TE22108	BHURE RUPESH DATTA	10		TE22140	PATIL ANUSHREE UMESH	6
TE22109	BHURE VYANKAT ACHYUTE	10		TE22141	PATIL DIGVIJAY RAVIRAJ	10
TE22110	CHITNIS CHINMAY MAHESH	8		TE22142	PATIL SAKSHI ULHAS	8
TE22111	DAYMA GIRIRAJ MANISH	AB		TE22143	PATIL VAISHALI UMAKANT	10
TE22112	DESAI GAURI SANJAY	6		TE22144	RANE YASH YOGIRAJ	6
TE22113	GAIDHANI VISHVESH PUSHKAR	6		TE22145	RAVI PRAKASH	6
TE22114	GHARDE ARADHYA VIJAY	8		TE22146	RISHAB KAR CHAUDHURI	10
TE22115	GHATOL AMIT SANJAY	6		TE22147	SANSKRUTI DIPAKRAO PATOND	8
TE22116	GIRIYAL ATHARVA JAGADISH	10		TE22148	SARDAR ANURAG PRABIR	6
TE22117	GODASE ABHINESH MOHAN	10		TE22149	SARTHAK GUPTA	6
TE22118	HEMANG AMRITLAL JAIN	10		TE22150	SATHE SAYALI KAILAS	8
TE22119	KADAM BHAKTI BHAGWAN	8		TE22151	SHEREKAR YASH RAVINDRA	6
TE22120	KAITKAR PRIYANKA MAHESH	6		TE22152	SHIRKE KALPESH CHANDRAKANT	10
TE22121	KAMBLE GEETA SURYAKANT	AB		TE22153	SHIVANGI SANTOSH JADHAO	10
TE22122	KANAWADE DEEP RAJENDRA	6		TE22154	SHREYA SHARMA	8
TE22123	KHAMGAL DHANASHREE GORAKHNATH	8		TE22155	SUMIT AMIT TIWARI	6
TE22124	KHAMGAL NIKITA VITTHAL	6		TE22156	SURANA SMRUTI SUNIL	6
TE22125	KHOLE DHANANJAY VIVEK	6		TE22157	THAKARE RUPESH VIJAY	8
TE22126	KHOT SHRISHAIL SANJAY	10		TE22158	VARUN SURESH GUPTA	6
TE22127	KODAG SARTHAK MAHENDRA	10		TE22159	WAGH ONKAR SHAHU	10
TE22128	KUSALE NIKHIL DATTATRAY	8		TE22160	WAGHMARE ATHARVA DATTATRAY	10
TE22129	MAHARAJ SHUBHAM KRISHNAMURARI	6		TE22161	YASH PRADIP JAGTAP	10
TE22130	MALAVADE MEGHNA NITIN	6		TE22162	YASHSINGH DINESHSINGH CHANDEL	8
TE22131	MALEGAVI PRAJWAL ASHOK	8		TE22163	YUKTA MILIND KABRA	6
TE22132	MALI VIRENDRA MUKUNDRAJ	10				

Feedback analysis of Direct Assessment:

Average Result: 7.8



The strategy used was a good success. The students learnt the concept very well and actively participated in the activity.

Reflective critiques:

1. Challenges: It is observed that a few students have not watched the video even though the reminder was given. Also, it is observed that many students have copied answers from others students.
2. Steps to be taken to avoid the problems: To avoid these challenges, next time students will be encouraged by announcing the prizes for this type of activity.
3. Changes for the next activity: Next time, this activity will have prizes for the correct submission of answers for the first 10 timely responses.

Dr Varsha Degaonkar
Signature of the Course Teacher

Hope Foundation's

International Institute of Information Technology, Pune

DEPARTMENT OF INFORMATION TECHNOLOGY

Innovative Practices in Teaching-Learning Activity

Think-pair -share

Role of Machine Learning in Autonomous vehicle

Academic Year and: 2022-23 Semester: V

Branch: IT Class: TE

Subject: Machine Learning Subject code: 314443

Day and Date: Wednesday,12th Oct.2022

Brief about the activity:

- **Objectives of the activity:**

i) To encourage students for individual reflection, thinking, and processing new information before they may be influenced by other students' answers.

ii) To teach the students how to explain their thoughts first to a peer, and then to a larger audience (the entire class).

- **Expected outcome:**

i) To let students to talk and learn more in a natural way.

ii) To give them the chance to think and try out ideas and new language.

iii)To provide a comfortable way for students to work through new skills and concepts, and works well in large classes.

- **Relevance:**

i) The Think-Pair-Share activity gives them the opportunity to feel more comfortable sharing their thoughts about new technology.

ii)In addition to adopting social skills, this strategy also improves students' speaking and listening skills.

- **Justification:**

Think-Pair-Share is a cooperative learning activity that can work in varied size classrooms and in any subject

No. of Students attended: **60**

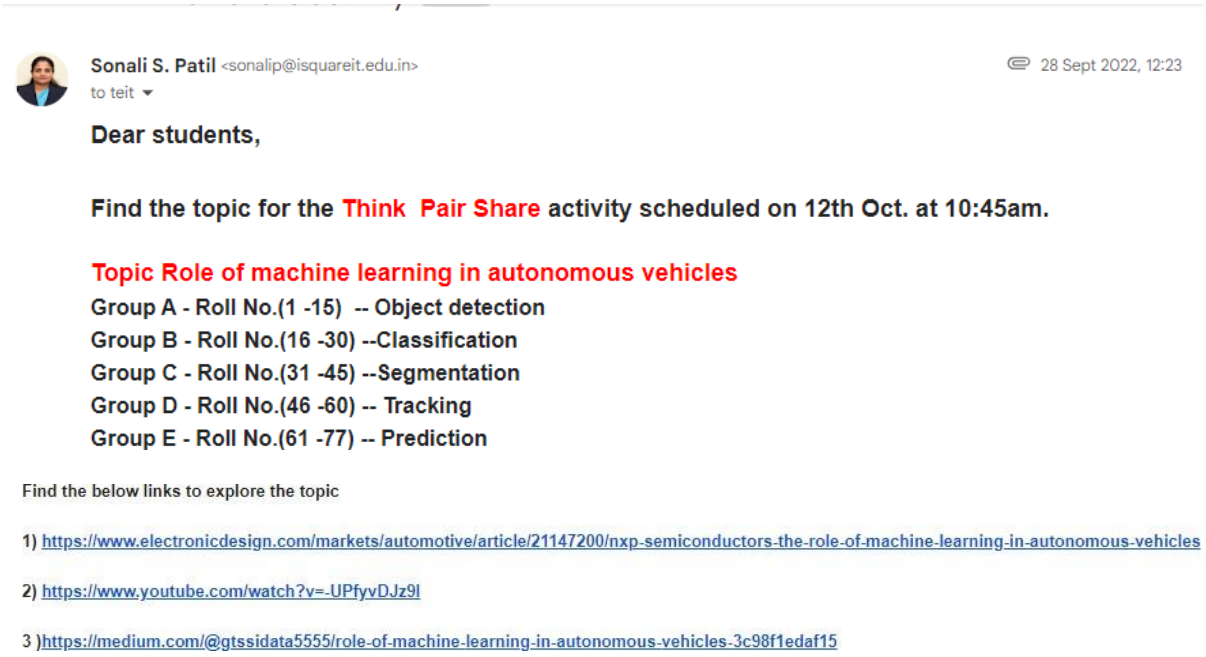
List of resources shared:

1) https://www.electronicdesign.com/markets/automotive/article/21147200/nxp-semiconductors-the-role-of-machine-learning-in-autonomous-vehicles

2) https://www.youtube.com/watch?v=-UPfyvDJz9I

3)https://medium.com/@gtssidata5555/role-of-machine-learning-in-autonomous-vehicles-3c98f1edaf15

Proof of resources shared (snapshots etc.):



Sonali S. Patil <sonalip@isquareit.edu.in> 28 Sept 2022, 12:23
to teit

Dear students,

Find the topic for the Think Pair Share activity scheduled on 12th Oct. at 10:45am.

Topic Role of machine learning in autonomous vehicles
Group A - Roll No.(1 -15) -- Object detection
Group B - Roll No.(16 -30) --Classification
Group C - Roll No.(31 -45) --Segmentation
Group D - Roll No.(46 -60) -- Tracking
Group E - Roll No.(61 -77) -- Prediction

Find the below links to explore the topic

1) https://www.electronicdesign.com/markets/automotive/article/21147200/nxp-semiconductors-the-role-of-machine-learning-in-autonomous-vehicles

2) https://www.youtube.com/watch?v=-UPfyvDJz9I

3)https://medium.com/@gtssidata5555/role-of-machine-learning-in-autonomous-vehicles-3c98f1edaf15

Conduction platform (if any): Classroom

Proofs of the activity (brief description and steps followed for effective implementation):

1) Topic “Role of Machine Learning in Autonomous Vehicles” is divided in the following groups as per different ML techniques used
   Group A - Roll No.(1 -15) -- Object detection
   Group B - Roll No.(16 -30) --Classification
   Group C - Roll No.(31 -45) --Segmentation
   Group D - Roll No.(46 -60) -- Tracking
   Group E - Roll No.(61 -77) – Prediction
2) T : (Think) Teachers begin by asking a specific question about the above subtopics to the group. Students "think" about what they know or have learned about the topic from given resource.
3) P : (Pair) Each student’s group paired with another group.
4) S : (Share) volunteer of each group shared their thinking with another group .
5) Activity concluded with summarization of all ML techniques used in Autonomous vehicle.

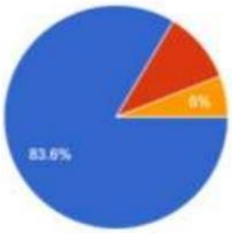
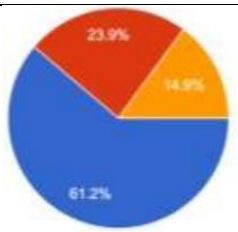
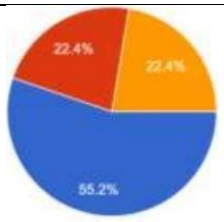
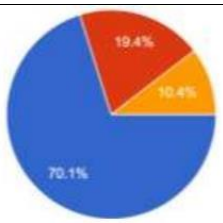
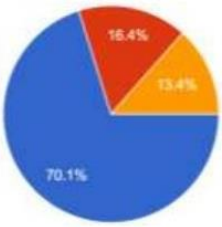







Glimpse of Think -Pair -Share activity

Feedback analysis of both Direct and Indirect assessment:
Indirect (feedback of event outcomes on the scale of excellent-5 to poor-1):

Do you prefer to work and share with your friend before answering the question during the lecture?	
Did you benefit from applying think-pair-share strategy with the friend in your group during this activity?	
Do you find that there is fun and you enjoy applying think-pair-share strategy during this activity?	
Is there an exchange and sharing of opinions, thoughts and ideas between you and your friends when applying think-pair-share strategy during this activity?	
Do you think applying think-pair-share strategy boosts your self-confidence?	

Impact of the innovative practice:
Students were able to present their seminar topics in systematic way.

Signature of the Course Teacher

Group A - Roll No.(1 -15)

Date 12th Oct.2022

Think-Pair-Share

Read the following question or problem:

Role of machine learning- Object detection in autonomous vehicles

Think

On your own, write three ideas you have about this question or problem:

1. Automatic parking of car using object detection.
2. Automatic detection of traffic lights
3. Speed control and automatic breaking system.
4.

Pair

Discuss your ideas with a partner. Put a check by any ideas, above, that your partner also wrote down. Then, write down ideas your partner had that you did not have:

1. Emergency vehicle detection and giving them priority to pass.
2. Automatic headlight according to daylight
3. Traffic sign & symbols detection and speed management

Share

Review all of your ideas and circle the one you think is most important. One of you will share this idea with the whole group.

As you listen to the ideas of the whole group, write down three more ideas you liked:

1. YOLO (you only look once)
2. Computer vision
3. CNN

Group A - Roll No.(16 -30) Date 12th Oct.2022

Think-Pair-Share

Read the following question or problem:

Role of machine learning- Classification in autonomous vehicles

Think

On your own, write three ideas you have about this question or problem:

1. While training the vehicle more importance is given to features. eg: shape
2. It is hard to detect pathholes, if it is filled with water
3. Hard to differentiate between Mirage effect and shinning of metals (present on car)

Pair

Discuss your ideas with a partner. Put a check by any ideas, above, that your partner also wrote down. Then, write down ideas your partner had that you did not have:

1. Hard to interpret between fog & heary rain.
2. Hard to predict roadlanes in hilly area.
3. After detecting safety matters.

Share

Review all of your ideas and circle the one you think is most important. One of you will share this idea with the whole group.

As you listen to the ideas of the whole group, write down three more ideas you liked:

1. Naive Bayes
2. Decision Tree
3. Support Vector Machine

Group A - Roll No.(31 -45)

Date 12th Oct.2022

Think-Pair-Share

Read the following question or problem:

Role of machine learning- Segmentation in autonomous vehicles

Think

On your own, write three ideas you have about this question or problem:

1. CNN approach is used to map pixels from camera input to steering commands.
2. We can use OpenCV for lane detection.
3. With RNN's ability to learn from the past, we're able to create a safer future for autonomous vehicles.

Pair

Discuss your ideas with a partner. Put a check by any ideas, above, that your partner also wrote down. Then, write down ideas your partner had that you did not have:

1. CNN cannot be used always, as it does not detect
2. the orientation. So here we use opencv.
3. For autonomous vehicle driving Bayesian algorithm can be used.
3. NAS can be used for object detection

Share

Review all of your ideas and circle the one you think is most important. One of you will share this idea with the whole group.

As you listen to the ideas of the whole group, write down three more ideas you liked:

1. CNN, opencv, NAS : Object detection.
2. Bayesian algorithm for autonomous driving.
3. Deep learning method : FCN to detect path.

Group A - Roll No.(46 -60)

Date 12th Oct.2022

Think-Pair-Share

Read the following question or problem:

Role of machine learning- Tracking in autonomous vehicles

Think

On your own, write three ideas you have about this question or problem:

1. Detect obstacles using patterns, eg) zebra-crossing
2. Calculating shortest and least-traffic path
3. Detect moving objects and slow the speed

Pair

Discuss your ideas with a partner. Put a check by any ideas, above, that your partner also wrote down. Then, write down ideas your partner had that you did not have:

1. Use of harris corner detection.
2. Selecting shortest/ effective path using different algorithms
3. Use of neural networking.

Share

Review all of your ideas and circle the one you think is most important. One of you will share this idea with the whole group.

As you listen to the ideas of the whole group, write down three more ideas you liked:

1. Use of GPS for shortest path calculation.
2. Combining GPS and object detection for
3. avoiding errors or accidents.

Group A - Roll No.(61 -77)

Date 12th Oct.2022

Think-Pair-Share

Read the following question or problem:

Role of machine learning- Prediction in autonomous vehicles

Think

On your own, write three ideas you have about this question or problem:

1. Inputs for prediction comes from sensors like Radar, LIDAR etc.
2. Using per camera networks to analyze raw images for performing object detection, depth estimation
3. On the basis of vehicle speed, type of vehicle we can predict to overtake the vehicle or not.

Pair

Discuss your ideas with a partner. Put a check by any ideas, above, that your partner also wrote down. Then, write down ideas your partner had that you did not have:

1. Based on visualization of camera we can use dataset for identifying object, obstacles, road quality.
2. We can take help from open source application such as gmap to get the best route.
3. _____

Share

Review all of your ideas and circle the one you think is most important. One of you will share this idea with the whole group.

As you listen to the ideas of the whole group, write down three more ideas you liked:

1. Building autopilot neural networks by gathering accurate and large scale ground data.
2. Risk analysis based on previous road accident zone / indicators.
3. Model based approach - Identifies common behaviors of vehicle using multi model estimation algorithm.
4. Data driven approach.
   - Naive Bayes classifier

Criterion 7 – Institutional Values and Best Practices

7.2 Best practices:

7.2.1 Describe at least <u>two</u> institutional best practices successfully implemented

<u>Practice-2</u>:

Title of the Practice: Improving quality of Continuous Internal Evaluation (CIE)

1. **Objectives of the Practice:**
   - Establish a systematic and comprehensive program assessment process to ensure continuous improvement in quality of internal examination question papers.
   - For planning and monitoring of academic activities as well as continuous internal evaluation.

2. **The Context:**
   - In response to the need for continuous enhancement and quality assurance, the institution has established a Program Assessment Committee (PAC) responsible for evaluating the effectiveness of academic programs.

3. **The Practice:**
   - <u>Formation of Program Assessment Committee (PAC):</u> The Program Assessment Committee is constituted in all departments to monitor and improve quality of internal evaluation. The PAC committee conducts regular assessments, focusing on:
   - Perform curriculum GAP analysis at the beginning of academic year and recommend suggestions to Head of departments to fill the gaps.
   - Monitoring the attainment of Program Outcomes (POs), Program Specific Outcomes (PSOs) and Program Educational Objectives (PEOs).
   - To recommend and incorporate suggestions from the DAB (Department Advisory Board) and stakeholders with respect to Program Educational Objectives and Program Specific Outcomes.
   - Evaluating program effectiveness and proposing necessary improvements.

- Incorporate the suggestions from IQAC.
- Preparing periodic reports on program activities, progress, status, or other special reports of the department.

4. Evidence of success:

- Identification of curriculum gaps at the beginning of the academic year.
- Enhanced quality of internal test question papers with higher BTL levels.

5. Problems encountered and Resources Required:

Problems encountered:

- Limited awareness and understanding of assessment processes among faculty.
- Resistance to data-driven decision-making.

Resources Required:

- Training programs to familiarize faculty with assessment methodologies.
- Software and tools for efficient data collection and analysis.

Principal
International Institute of Information Technology
Hinjawadi, Pune - 411057

Date: 01-09-2022

Department of Electronics and Telecommunication

Program Assessment Committee

The Program Assessment Committee (PAC) consisting of following members has been formed for planning and monitoring of academic activities for AY2022-23.

PAC Composition for AY2022-23

Name of the member	Category	Designation
Dr. Risil Chhatrala	HoD	Chairman
Dr. Varsha Degaonkar	APMC Coordinator	Member
Prof. Ashvini Kulkarni	Academic Coordinator	Member
Prof. Bhagyashri Thorat	Class teacher BE	Member
Prof. Dikshendra Sarpate	Class teacher TE	Member
Prof. Suvarna Hande	Class teacher SE	Member

Roles and responsibilities

- At the start of academic year, perform curriculum GAP analysis and recommended suggestions to fill the gaps
- Monitoring the attainment of Program Outcomes (POs), Program Specific Outcomes (PSO), Program Educational Objectives (PEOs).
- To recommend and incorporate the suggestions from the DAB (Department Advisory Board), stake holders in respect of Program Educational Objectives and Program Specific Outcomes.
- Evaluating program effectiveness and propose necessary improvements.
- Incorporate the suggestions from the IQAC.
- Preparing periodic reports on program activities, progress, status or other special reports of Department.

Dr. Risil Chhatrala
Head of Department

01/9/22
Dr. Vaishali V. Patil
Principal

CC: 1. Members
2. Other Departments
3. IQAC Office

Class Test 1 Exam TE E&TC Elective – I Fundamentals of JAVA Programming

Hope Foundation's
International Institute of Information Technology, Pune
Department of Electronics and Telecommunication
AY2022-2023, Semester I
Class: TE
Subject:Elective-I Fundamentals of JAVA Programming
Maximum Marks: 30 Marks
Day and Date: Thursday 25/08/2022
Time: 8.30 am to 9.30 am

varshad@isquareit.edu.in Switch accounts

*Required

Email *

Your email address

Roll No.: *

Choose

Name of the Student *

Choose

1. Which of these jump statements can skip processing the remainder of the code in its body for a particular iteration? BTL2 CO305.1 * Marks: 1

- ○ a) break
- ○ b) return
- ○ c) exit
- ● d) continue

2. Which of the following loops will execute the body of loop even when condition controlling the loop is initially false? BTL2 CO305.1 * Marks: 1

- ● a) do-while
- ○ b) while
- ○ c) for
- ○ d) none of the mentioned

3. What will be the output of the following Java program? BTL3 CO305.1 *

Marks: 2

```
public class Main{
        public static void main(String args[])
        {
              int a = 1;
              int b = 2;
              int c = 3;
              a |= 4;
              b >>= 1;
              c <<= 1;
              a ^= c;
              System.out.println(a + " " + b + " " + c);
        }
    }
```

- [x] a) 3 1 6
- [ ] b) 2 2 3
- [ ] c) 2 3 4
- [ ] d) 3 3 6

4. Which of these statements are incorrect? BTL2 CO305.1 *

Marks: 1

- [ ] a) Assignment operators are more efficiently implemented by Java run-time system than their equivalent long forms
- [ ] b) Assignment operators run faster than their equivalent long forms
- [ ] c) Assignment operators can be used only with numeric and character data type
- [x] d) None of the mentioned

5. Which of these is an incorrect array declaration? BTL2 CO305.1 *

Marks: 1

- [ ] a) int arr[] = new int[5]
- [ ] b) int [] arr = new int[5]
- [ ] c) int arr[] = new int[5]
- [x] d) int arr[] = int [5] new

6. Which of these operators is used to allocate memory to array variable in Java? BTL2 CO305.1 *

Marks: 1

- [ ] a) malloc
- [ ] b) alloc
- [x] c) new
- [ ] d) new malloc

7. Which of these can not be used for a variable name in Java? BTL2 CO305.1 *

Marks: 1

- [ ] a) identifier
- [x] b) keyword
- [ ] c) identifier & keyword
- [ ] d) none of the mentioned

8. Which of these is long data type literal? BTL2 CO305.1 *

Marks: 1

- [x] a) 0x99fffL
- [ ] b) ABCDEFG
- [ ] c) 0x99fffa
- [ ] d) 99671246

9. What will be the output of the following Java code? BTL3 CO305.1 *

Marks: 2

```
public class Main{
        public static void main(String args[])
        {
            char a = 'A';
            a++;
        System.out.print((int)a);
        }
    }
```

- [x] a) 66
- [ ] b) 67
- [ ] c) 65
- [ ] d) 64

10. What will be the output of the following Java code? BTL2 CO305.1 *

Marks: 2

```
public class Main{
        public static void main(String args[])
        {
            int g = 3;
            System.out.print(++g * 8);
        }
    }
```

- [ ] a) 25
- [ ] b) 24
- [x] c) 32
- [ ] d) 33

11. What will be the output of the following Java code? BTL2 CO305.1 *

Marks: 2

```
public class Main{
        public static void main(String args[])
        {
            double num[] = {5.5, 10.1, 11, 12.8, 56.9, 2.5};
            double result;
            result = 0;
            for (int i = 0; i < 6; ++i)
                result = result + num[i];
        System.out.print(result/6);

        }
    }
```

- [ ] a) 16.34

- ○ b) 16.566666644
- ● c) 16.46666666666667
- ○ d) 16.46666666666666

12. What is not the use of the "this" keyword in Java? BTL2 CO305.2 *

Marks: 1

- ○ a) Passing itself to another method
- ○ b) Calling another constructor in constructor chaining
- ○ c) Referring to the instance variable when local variable has the same name
- ● d) Passing itself to method of the same class

13. What will be the output of the following Java program? BTL3 CO305.2 *

Marks: 2

```
class box{
        int width;
        int height;
        int length;
        int volume;
        void volume(int height, int length, int width){
             volume = width*height*length;
        }
    }
class Main{
    public static void main(String args[]){
        box obj = new box();
        obj.height = 1;
        obj.length = 5;
        obj.width = 5;
        obj.volume(3,2,1);
        System.out.println(obj.volume);
    }
}
```

- ○ a) 0

- ○ b) 1
- ● c) 6
- ○ d) 25

14. Which of these statements is incorrect? BTL2 CO305.2 *

Marks: 1

- ○ a) All object of a class are allotted memory for the all the variables defined in the class
- ○ b) If a function is defined public it can be accessed by object of other class by inheritation
- ○ c) main() method must be made public
- ● d) All object of a class are allotted memory for the methods defined in the class

15. Which method can be defined only once in a program? BTL2 CO305.2 *

Marks: 1

- ● a) main method
- ○ b) finalize method
- ○ c) static method
- ○ d) private method

16. Which of the following is a method having the same name as that of its class? BTL2 CO305.2 *

Marks: 1

- ○ a) finalize
- ○ b) delete
- ○ c) class
- ● d) constructor

17. What will be the output of the following Java program? BTL3 CO305.2 *

Marks: 2

```
class box {
        int width;
        int height;
        int length;
    }
public class Main{
        public static void main(String args[]){
            box obj = new box();
             obj.width = 10;
             obj.height = 2;
             obj.length = 10;
             int y = obj.width * obj.height * obj.length;
             System.out.print(y);
        }
    }
```

- ○ a) 12
- ● b) 200
- ○ c) 400
- ○ d) 100

18. Which of the following statements is correct? BTL2 CO305.2 *

Marks: 1

- ● a) Public method is accessible to all other classes in the hierarchy
- ○ b) Public method is accessible only to subclasses of its parent class
- ○ c) Public method can only be called by object of its class
- ○ d) Public method can be accessed by calling object of the public class

19. What will be the output of the following Java program? BTL3 CO305.2 *

Marks: 2

```
public class Main{
        public static void main(String args[])
        {
            int x = 9;
            if (x == 9)
            {
                int x = 8;
                System.out.println(x);
            }
        }
    }
```

- ○ a) 9
- ○ b) 8
- ● c) Compilation error
- ○ d) Runtime error

20. Which of these statements is incorrect? BTL2 CO305.2 *

Marks: 1

- ● a) Every class must contain a main() method
- ○ b) Applets do not require a main() method at all
- ○ c) There can be only one main() method in a program
- ○ d) main() method must be made public

21. Which of these operators is used to allocate memory for an object? BTL2 CO305.2 *
Marks: 1

- a) malloc
- b) alloc
- **c) new**
- d) give

22. Which of the following is a valid declaration of an object of class Box? BTL2 CO305.2 *
Marks: 1

- **a) Box obj = new Box();**
- b) Box obj = new Box;
- c) obj = new Box();
- d) new Box obj;

23. What is stored in the object obj in the following lines of Java code? box obj; BTL2 CO305.2 *
Marks: 1

- a) Memory address of allocated memory of object
- **b) NULL**
- c) Any arbitrary pointer
- d) Garbage

Submit Clear form

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SE. TE. BE. (CT)
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A.C.

HOD.