

WEB BASED LEARNING PROCESS

JAVA PROGRAMMING

Introduction:

Web-based learning refers to the type of **learning** that uses the Internet as an instructional delivery tool to carry out various **learning** activities. It can take the form of a pure online **learning** in which the curriculum and **learning** are implemented online without face-to-face meeting between the instructor and the students, or a hybrid in which the instructor meets the students half of the time online and half of the time in the classroom, depending on the needs and requirement of the curriculum. **Web-based learning** can be integrated into a curriculum that turns into a full-blown course or as a supplement to traditional courses.

Approaches during web based learning:

1. **Synchronous:** in this approaches the instructor and all enrolled students interact online simultaneously. Similar in some ways to a webinar, students interact through text, video or audio chat. This also enables learning environments for students to participate in a course from a distance.
2. **Hybrid:** Hybrid courses, also known as blended courses, are learning environments that allow for both in-person and online interaction. Typically, hybrid courses meet in person several times during a semester and provide for computer-based communication in between those face to face sessions.

PLATFORM:

Here we use **MS-Teams** software. Microsoft Teams is a chat-based collaboration platform complete with document sharing, online meetings, and many more useful features for classroom environments.

Infinity Group can quickly deploy Microsoft Teams for Education also to enable Teachers to continue to promote learning in a virtual classroom aside from their normal classroom environment.



Benefits:

- Teams and channels. ...
- Conversations within channels and teams. ...
- A chat function. ...
- Document storage in SharePoint. ...
- Online video calling and screen sharing. ...
- Online meetings. ...
- Audio conferencing. ...
- Full telephony.

Tools:

- 1 – File sharing.
- 2 – Meeting Scheduler. ...
- 3 – Shifts. ...
- 4 – Enhanced Search Bar. ...
- 5 – Microsoft Stream. ...
- 6 – In tune for Microsoft 365. ...
- 7 – Wiki. ...
- 8 – Karma.

Inheritance using java

The idea behind inheritance in Java is that student **can create new classes that are built upon existing classes**. When we inherit from an existing class, we can reuse methods and fields of the parent class. Moreover, we can add new methods and fields in our current class also.

In on the rise competitive world, programming is well thought-out an essential and significant ability for any learner pursuing a line of business in engineering & technology.

Purpose of the course is to rendering student with computational thoughts and fills the gap between technology and programming skills.

Inheritance concept in java course is designed from view of what is computational and how do you perform it and how you can write efficient code to make any system as automated and solve real world problems. The main beliefs of assortment of topic and instruction method are the fundamentals of computer programming so as to be supposed to be introducing through sufficient information to put into practice computing with computers.

Using inheritance concept in java we create an ATM program for representing ATM transaction

Online Java Code:

```
/******  
*
```

Online Java Compiler.

Code, Compile, Run and Debug Java program online.

Write your code in this editor and press "Run" button to compile and execute it.

```
*****  
*/  
  
//import required classes and packages  
import java.util.Scanner;  
  
//create ATMExample class to implement the ATM functionality  
public class ATMExample  
{  
    //main method starts  
    public static void main(String args[] ) {  
        //declare and initialize balance, withdraw, and deposit  
        int balance = 100000, withdraw, deposit;  
  
        //create scanner class object to get choice of user  
        Scanner sc = new Scanner(System.in);  
  
        while(true)
```

```

{
    System.out.println("Automated Teller Machine");
    System.out.println("Choose 1 for Withdraw");
    System.out.println("Choose 2 for Deposit");
    System.out.println("Choose 3 for Check Balance");
    System.out.println("Choose 4 for EXIT");
    System.out.print("Choose the operation you want to perform:");

    //get choice from user
    int choice = sc.nextInt();
    switch(choice)
    {
        case 1:
            System.out.print("Enter money to be withdrawn:");
            //get the withdrawl money from user
            withdraw = sc.nextInt();
            //check whether the balance is greater than or equal to the withdrawal amount
            if(balance >= withdraw)
            {
                //remove the withdrawl amount from the total balance
                balance = balance - withdraw;
                System.out.println("Please collect your money");
            }
            else
            {
                //show custom error message
                System.out.println("Insufficient Balance");
            }
            System.out.println("");
            break;
        case 2:
            System.out.print("Enter money to be deposited:");

```

```

//get deposite amount from te user
deposit = sc.nextInt();
//add the deposit amount to the total balanace
balance = balance + deposit;
System.out.println("Your Money has been successfully depsited");
System.out.println("");
break;
        case 3:
//displaying the total balance of the user
System.out.println("Balance : "+balance);
System.out.println("");
break;
        case 4:
//exit from the menu
System.exit(0);
    }
}
}
}
}

```

Output:

Automated Teller machine

Choose 1 for withdrawal

Choose 2 for Deposit

Choose 3 for Check Balance

Choose 4 for EXIT

Choose the operation you want to perform: 1

Enter money to be withdrawal:

Please collect your money

Automated Teller machine

Choose 1 for withdrawal

Choose 2 for Deposit

Choose 3 for Check Balance

Choose 4 for EXIT

Choose the operation you want to perform: 2

Enter money to be deposited:

Your money has been successfully deposited

Automated Teller machine

Choose 1 for withdrawal

Choose 2 for Deposit

Choose 3 for Check Balance

Choose 4 for EXIT

Choose the operation you want to perform: 3

Balance: 100300

Automated Teller machine

Choose 1 for withdrawal

Choose 2 for Deposit

Choose 3 for Check Balance

Choose 4 for EXIT

Choose the operation you want to perform: 4

```
cmd Command Prompt
Microsoft Windows [Version 6.1.7600]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\nsak-pc>cd..
C:\Users>cd..
C:\>cd C:\Users\nsak-pc\Desktop
C:\Users\nsak-pc\Desktop>javac ATMExample.java
C:\Users\nsak-pc\Desktop>java ATMExample
Automated Teller Machine
Choose 1 for Withdraw
Choose 2 for Deposit
Choose 3 for Check Balance
Choose 4 for EXIT
Choose the operation you want to perform:1
Enter money to be withdrawn:200
Please collect your money

Automated Teller Machine
Choose 1 for Withdraw
Choose 2 for Deposit
Choose 3 for Check Balance
Choose 4 for EXIT
Choose the operation you want to perform:2
Enter money to be deposited:500
Your Money has been successfully depsited

Automated Teller Machine
Choose 1 for Withdraw
Choose 2 for Deposit
Choose 3 for Check Balance
Choose 4 for EXIT
Choose the operation you want to perform:3
Balance : 100300

Automated Teller Machine
Choose 1 for Withdraw
Choose 2 for Deposit
Choose 3 for Check Balance
Choose 4 for EXIT
Choose the operation you want to perform:4
C:\Users\nsak-pc\Desktop>_
```

The works must be available for peer review and critique (4)

A meeting was conducted with the Departmental staff members for the awareness purpose and as well as for review and critique.

S.No	Name of the Faculty	Designation	Suggestions/Review/Remark	Signature

Statement of clear goals, use of appropriate methods, significance of results

Goals:

A Goal of teaching through web is that the students are actively engaged in figuring out the principles by abstracting from the examples. This process develops skills in:

- Enhance the quality of learning and teaching.
- Meet the learning style or needs of students.
- Improve the efficiency and effectiveness.
- Improve accessibility and time flexibility to engage learners in the learning process.

Appropriate Methods: PPTs Presentation (webinars), Online Java compiler, Java Jdk 1.7, Net beans.

Significance of Result:

The main objective in mind when teaching this course is to make programming more interesting to students who do not view it so, assuming that greater student interest would lead to better performance in class and deeper understanding and appreciation of the subject. Programming courses often teach such basic concepts that it is difficult to design assignments that are simultaneously simple, challenging and interesting. We feel that our teaching methodology provides all three aspects. Our interactions in the classroom, along with the average performance of the students in the assignments, provide encouraging evidence that our approach worked well in these aspects.

Students were able to get good results both in practical and theory

	Practical Exam	Theory semester end Exam
Pass percentage	100%	86%

Feedback and Result Analysis

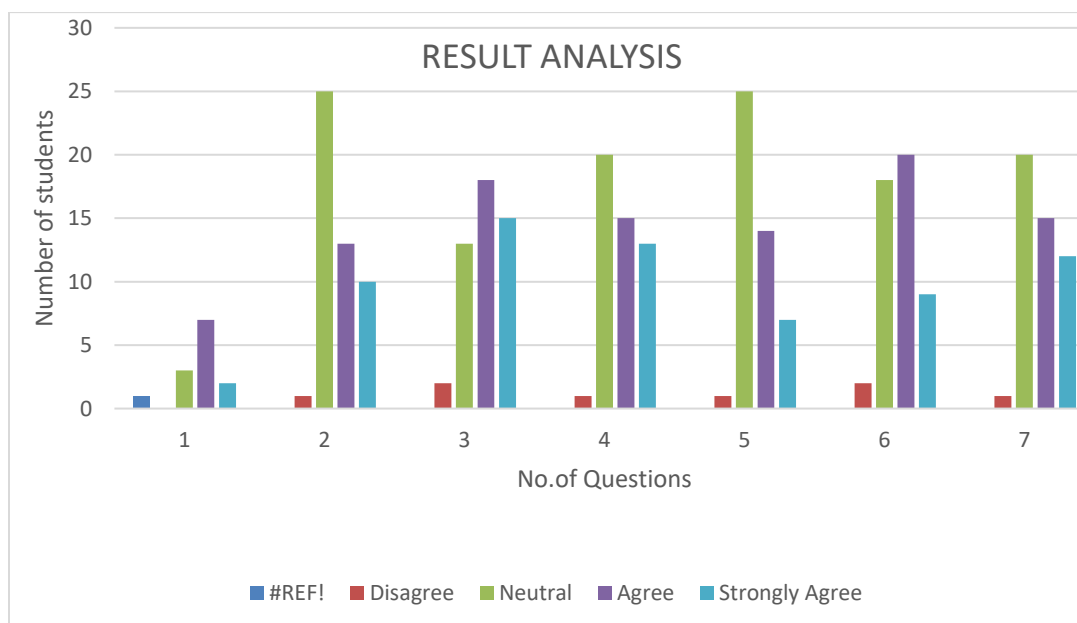
A survey has been conducted in which students and faculties were asked certain questions .

Questionnaire/Feedback from Students

S.No	Question No	Questions
1	Q1	The web based learning increased your knowledge and skills in the subject matter.
2	Q2	The course gave you the confidence to do more advanced work in the subject
3	Q3	Do you believe that what you are being asked to learn in this course is important
4	Q4	Overall, this course met your expectations for the quality of the course
5	Q5	The course was helpful in progress toward my degree
6	Q6	The instructor's teaching methods were effective.
7	Q7	The instructor encouraged student participation in class.

Distribution of students' answers (numbers and percentage) provided for the survey's questions

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Q1	1	2	20	15	12
Q2	1	1	25	13	10
Q3	2	2	13	18	15
Q4	1	1	20	15	13
Q5	2	1	25	14	7
Q6	1	2	18	20	9
Q7	1	1	20	15	12



Questionnaire/Feedback from Faculty/Peer Review

S.No	Question No	Questions
1	Q1	The instructor effectively explained and illustrated the purpose and importance of the course concepts
2	Q2	The instructor communicated clearly and was easy to understand i.e., teaching methods were effective.
3	Q3	The instructor effectively organized and facilitated well-run learning activities and was well-prepared for class/discussion sections.
4	Q4	Did this Innovative practice helped to improve and increase the abilities of students.
5	Q5	The instructor cared about the students, their progress, and successful course completion.
6	Q6	I would highly recommend this instructor to other students as it encouraged student participation in class.

Question No	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Q1	0	0	5	2	5
Q2	0	0	2	6	4
Q3	0	0	3	6	3
Q4	0	0	2	5	5
Q5	0	0	1	5	6
Q6	0	0	1	3	8

