JAVA7.0 (OAKJAVA) Programming Language

BY

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About the Author and Preface

This JAVA7(OAKJAVA) is Designed by Analyzing many Research papers. Using JAVA7(OAKJAVA) one can build Program Logic ,web application, remote web application as Fast

As could. I Thank God for this wisdom given to me…

----------Wilmix Jemin J,Jemin Information Technology

This EBOOK is Printed in Asia.

To Make Software Fast like Rabbit movement

and a global redistribution of prosperity

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Thanks to all!

---------WILMIX JEMIN J

About this Book

Welcome to JAVA7.0(OAKJAVA)! If you've picked up this book, we suspect you're a JAVA/J2ee Professional. Working with database who's somehow or other heard about database like sqlserver or oracle.

Perhaps you've worked with the Other Technologies in the past, perhaps you've worked with another Technologies , or perhaps this is your first step into JAVA7.0 P.L.

Whichever path has led you here, you're probably looking for a good introduction

to the new JAVA7.0 Programming Language. This book intends to give you that introduction and much more. If you've never heard of JAVA7.0, we cover the basics in enough depth to keep you in tow. If you know what JAVA /J2ee does, but want a deeper understanding of how it does it, we'll provide that too.

Roadmap

Book is focused on JAVA7.0 Programming Language , if you have knowledge or experience about JAVA you can easily focus it.

But Minimum JAVA Technical Knowledge is required to focus on Studying, Designing JAVA7.0 Modules .

JAVA7.0 is an Advanced Technology focused on Software

Development.

The Brief Contents

Code conventions

The following typographical conventions are used throughout the book:

■ Courier typeface is used in all code listings.

■ Courier typeface is used within text for certain code words.

■ Italics are used for emphasis and to introduce new terms.

■ Code annotations are used in place of inline comments in the code. These highlight important concepts or areas of the code.

Code downloads

This will get you the OAKJAVA7.zip file by purchasing it.

a couple of OAKJAVA7 archive files —as well as some documentation of the source. Instructions on how to install the application are contained in a README file in that download.

Unit-1 : Introduction to JAVA7.0 Programming Language

Definition:

"JAVA7.0 is meant for Code Security, Learnable, Prototype software, Advanced , used in Software development, web application ,remote web application , and it symbolizes Tiger symbol, used in applications like Gaming , used with java/j2ee framework like Struts, spring , hibernate ,etc."

ABOUT JAVA7.0

=========

JAVA7.0 Programming Language is otherwise known as OAKJAVA (JAVA7) which is invented by wilmix jemin j at year 2013 in java ,JDollar(JWEB).

JAVA7.0 is used instead of java(jdk1.7) and jdk1.8.

This two versions of JAVA (Jdk1.8,jdk1.7) failed that is using JAD decompiler we can easily take the source code..

We felt thanks to best friends venkat friend , github , and all for their support..

DEMERITS of JAVA and C#

==========

a) JAVA class file has many demerits so any thing you create a compiler in java the source code can be easily taken by JAD.

b) C# (.exe or .dll) source code can also be taken using any code reflector available in google site.

That's why JAVA7.0 is focused.

So Creating software in C# is useless.

JAVA7.0 is a OAKJAVA7 for creating datastructures
and compilers.

JAVA7.0 accepts ".java" filename and translate to .class file.
that java is said to oak java different from orginal java; which is not understood by hackers.

JAVA7.0 loads .dll in memory to create a Prototype software.

Unit-2: Program Structures for OAKJAVA7

SYNTAX-1:

=======

```
<WEB>
<USE> packages;
<PACK> packagename
{

   <CLASS>  <classname>
  {
     public void main()
     {
       <! source  code !>
     }
  }
}
```

SYNTAX-2:

Filename.java

=========

```
 class <classname>

{


protected static void  main(String args[]) //  it  means it cannot  be  run   in   jdk1.8 compiler

{

<!  OAKJAVA Logic  !>
}

}
```

JAVA7.0 SYNTAX-1 Program Structure(.web)

Beginning Section : **<WEB>**

Documentation Section

Package Statement;

<USE> Statement;

<PACK> packagename

LOGIC SECTION

```
   <CLASS>  <classname>
  {
     public void main()
     {
       <! source  code !>
     }
```

CLOSE LOGIC SECTION

ENDING SECTION : }

Explanation:

JAVA7.0 Ending section is } ; Ending your JAVA7.0 program

Documentation Section means you can include description

with comments.

Package statement means you had to include JAVA7.0 program in Package ....

<USE> statement to import all the packages.

Interface statement for supporting multiple inheritance.

Logic section for writing JAVA7.0 logic with Class followed by main method .

after writing logic close the logic section.

JAVA7.0 SYNTAX-2 Program Structure(.java)

Documentation Section

Package Statement;

Import Statement;

LOGIC SECTION

```
   class  <classname>
  {
    protected static void  main(String args[])
//if JAVA7.0  used  for  native  purpose then  save  the  file    as filename.java7h and  donot
//Define  main fucntion  just  define  apis…

    {
      <! source  code !>
    }
```

CLOSE LOGIC SECTION

ENDING SECTION : }

Explanation:

All JAVA7.0 should start with class <classname>

But protected static void main(String args[]) is used instead for

public static void main(String args[]) for protection from hackers

And use .java7h extension for native Purpose.

JAVA7.0 SYNTAX-3 Program Structure

==========

Beginning Section : **<JAVA>**

Documentation Section

Package Statement;

<USE> Statement;

<PACK> packagename

LOGIC SECTION

```
  <CLASS>  <classname>
 {
   public void main()
   {
     <! source  code !>
   }
```

CLOSE LOGIC SECTION

ENDING SECTION : }

Explanation:

JAVA7.0 Ending section is } ; Ending your JAVA7.0 program

Documentation Section means you can include description

with comments.

Package statement means you had to include JAVA7.0 program in Package ....

<USE> statement to import all the packages.

Interface statement for supporting multiple inheritance.

Logic section for writing JAVA7.0 logic with Class followed by main method .

after writing logic close the logic section.

UNIT 3	OAKJAVA7 with CDollar

JAVA7.0 - CDollar Program Structure(.cdollar)

Beginning Section : **<CDollar>**

Documentation Section

Package Statement;

<IMPORT> <optional>

<USE> Statement;

Interface Statement

LOGIC SECTION

Class Declaration

```
protected Shared void main(String args[])
{



}
```

CLOSE LOGIC SECTION

ENDING SECTION : ?>

Explanation:

CDollar Beginning section is <CDollar> ; beginning your CDollar program

CDollar Ending section is ?> ; Ending your CDollar program

Documentation Section means you can include description

with comments.

Package statement means you had to include Cdollar program in Package ....

<USE> statement to import all the packages.

Interface statement for supporting multiple inheritance.

Logic section for writing Cdollar logic with Class followed by main method .

after writing logic close the logic section.

SYNTAX FOR JAVA7.0-CDOLLAR (.cdollar) (beautiful syntax)

<CDollar>

<IMPORT>

<%

<! CDollar OOPS Logic !>

%>

?>

note: This should be saved in filename.cdollar

CDOLLAR COMPILER WORKFLOW

How CdollarP1 Technology Works?

_____-

At first .cjava is compiled by Cdollarcc compiler

it produces .exe filename.

How CdollarP2 Technology Works?

_____-

At first .cdollar is compiled by Cdollarc compiler

And it translate to .C$ file with intermediate code that hacker can't understood.

Cdollarv.4 translator uses CDC friend compiler Which compiles

the Cdollar program.

After that Cdollarv.4 translates to .wl class files and use

CDRUN filename.wl automatically to run the Program.

So converting the bytes codes in .wl class file makes the progam

to run faster than other compilers..

==========

CDollarv.4

We know that CDollarc is the compiler, But CDollarv.4 is a translator which translates

your program to .wl files or .Exe files...

This .wl files are futhure use.

CDollarv.4 version is focused on windows...

How to compile cdollar Program in windows?

Cdollarc <filename.cdollar>

How to run cdollar Program in windows?

CDRUN filename

Why CDollar?

CDollar is used for creating libraries ; CDollar is formed in C/C++

in year 2004.

CDollar is modified in java technology in year 2013, 2015,2016.

CDollar is the combination of JAVA , C/C++, and Advanced OOPS.

it will only accept the shortest attractive syntax.

CDollar first name is "OLIVE Technology" which represents OLIVE TREE . Olive Technology

is renamed as CDOLLAR.

Note: a) The Meaning of CDollar is combination of C++ and JAVA OOPS

concepts.

c) CDollar version 1 contains a build compiler .cdollar.

where .cdollar has the features like java,C# , and C/C++.

SYNTAX-1 (used only for CWEB - .cdollar)

<CDollar>

<USE> packages;

<%

<! CDollar-.cdollar OOPS Logic and main functions !>

%>

?>

How CDollar is formed ? What are its Advantages Over Native language JAVA Programming?

CDollar is formed in C++ OOPS concepts..

JAVA borrowed C++ OOPS concepts but

CDollar borrowed C++ OOPS concepts and JAVA oops and it has

Attractive syntax ; Plus in-build functions

for Program and it is responsible for creating

libraries (.wl). JAVA has attained the Programming

standards, But CDollar attains combination of C Technology

and JAVA Technology advantages.

CDollar Generates .wl class files

but JAVA Generated .class files.

Cdollar Has Advanced OOPS than JAVA 1.8.

KEYWORDS

CDollarc Keywords

==========

<CDollar> ?> <IMPORT> <Finally> UnShared

abstract boolean break byte

case <CATCH> char class const

continue default do double else

enum <--- final finally float

for goto if --> <USE>

instanceof int interface long native

<NEW> package private protected public

return short Shared strictfp <SUPER>

switch synchronized <IS>

throw throws transient <TRY> void volatile while

<% %>

==========

CDollarcc and CJAVA Keywords

==========

<CJAVA> <CDOllar>

abstract add as ascending

async await base bool

break by byte case

catch char checked <CLASS>

const continue decimal default

delegate descending do double

dynamic else enum <EQUALS>

explicit extern false finally

fixed float for foreach

from get global goto

group if implicit in

int interface internal into

is join let lock

long <PACK> <NEW> null

object on operator orderby

out override params partial

private protected public readonly

ref remove return sbyte

sealed select set short

sizeof stackalloc Shared string

struct switch this throw

true <TRY> typeof uint

ulong unchecked unsafe ushort

using value var virtual

void volatile where while

yield <% %>

OTHER KEYWORDS IN CDOLLAR

AND -> AND operator

NOT -> NOT operator

-> NOTEQUALS

RUN -> Runnable used in thread

TH-> Thread

<EXE> -> Exception

Friends -> Frend function

OTHER ATTRACTIVE SYMBOLS in CDOLLAR

--> => implements

<-- => extends

DATATYPES

CDollarcc DATATYPES

The eight primitive data types in Java are:

boolean, the type whose values are either true or false.

char, the character type whose values are 16-bit Unicode characters

the arithmetic types:

the integral types:

- byte
- short
- int
- long

the floating-point types:

- float
- double

Values of class type are references. Strings are references to an instance of class String.

Primitive Data Types

There are eight primitive datatypes supported by CDollarc. Primitive datatypes are predefined by the language and named by a keyword. Let us now look into the eight primitive data types in detail.

byte

Byte data type is an 8-bit signed two's complement integer

Minimum value is -128 (-2^7)

Maximum value is 127 (inclusive)(2^7 -1)

Default value is 0

Byte data type is used to save space in large arrays, mainly in place of integers, since a byte is four times smaller than an integer.

Example: byte a = 800, byte b = -850

short

Short data type is a 16-bit signed two's complement integer

Minimum value is -32,768 (-2^15)

Maximum value is 32,767 (inclusive) (2^15 -1)

Short data type can also be used to save memory as byte data type. A short is 2 times smaller than an integer

Default value is 0.

Example: short s = 77000, short r = -880000

int

Int data type is a 32-bit signed two's complement integer.

Minimum value is - 2,147,483,648 (-2^31)

Maximum value is 2,147,483,647(inclusive) (2^31 -1)

Integer is generally used as the default data type for integral values unless there is a concern about memory.

The default value is 0

Example: int a = 340000, int b = -7600000

long

Long data type is a 64-bit signed two's complement integer

Minimum value is -9,223,372,036,854,775,808(-2^63)

Maximum value is 9,223,372,036,854,775,807 (inclusive)(2^63 -1)

This type is used when a wider range than int is needed

Default value is 0L

Example: long a = 34990L, long b = -92000000L

float

Float data type is a single-precision 32-bit IEEE 754 floating point

Float is mainly used to save memory in large arrays of floating point numbers

Default value is 0.0f

Float data type is never used for precise values such as currency

Example: float f1 = 54.5f

double

double data type is a double-precision 64-bit IEEE 754 floating point

This data type is generally used as the default data type for decimal values, generally the default choice

Double data type should never be used for precise values such as currency

Default value is 0.0d

Example: double d1 = 15.7

boolean

boolean data type represents one bit of information

There are only two possible values: true and false

This data type is used for simple flags that track true/false conditions

Default value is false

Example: boolean one = true

Char

char data type is a single 16-bit Unicode character

Char data type is used to store any character

Example: char letterA = 'S'

Conditional Operator (? :) in CDollarc

Conditional operator is also known as the ternary operator. This operator consists of three operands and is used to evaluate Boolean expressions. The goal of the operator is to decide, which value should be assigned to the variable. The operator is written as −

variable x = (expression) ? value if true : value if false

PRIMITIVE DATATYPES in CDOLLARCC

The following table lists the available value types in CDollarcc (v.1)

bool	Boolean value	True or False	False
byte	8-bit unsigned integer	0 to 255	0
char	16-bit Unicode character	U +0000 to U +ffff	'\0'
decimal	128-bit precise decimal values with 28-29 significant digits	(-7.9 x 1028 to 7.9 x 1028) / 100 to 28	0.0M
double	64-bit double-precision floating point type	(+/-)5.0 x 10-324 to (+/-)1.7 x 10308	0.0D
float	32-bit single-precision floating point type	-3.4 x 1038 to + 3.4 x 1038	0.0F
int	32-bit signed integer type	-2,147,483,648 to 2,147,483,647	0
long	64-bit signed integer type	-9,223,372,036,854,775,808 to 9,223,372,036,854,775,807	0L
sbyte	8-bit signed integer type	-128 to 127	0
short	16-bit signed integer type	-32,768 to 32,767	0
uint	32-bit unsigned integer type	0 to 4,294,967,295	0
ulong	64-bit unsigned integer type	0 to 18,446,744,073,709,551,615	0
ushort	16-bit unsigned integer type	0 to 65,535	0

OPERATORS in CDollarcc

Operator Type	Category	Precedence
Unary	postfix	expr++ expr--
	prefix	++expr --expr +expr -expr ~ !
Arithmetic	multiplicative	* / %
	additive	+ -
Shift	shift	<< >> >>>
Relational	comparison	< > <= >= instanceof
	equality	== NOT=
Bitwise	bitwise AND	&
	bitwise exclusive OR	^
	bitwise inclusive OR	|
Logical	logical AND	AND
	logical OR	OR
Ternary	ternary	? :
Assignment	assignment	= += -= *= /= %= &= ^= |= <<= >>= >>>=

CDollarcc has the following type of operators:

Arithmetic Operators

Relational Operators

Logical Operators

Bitwise Operators

Assignment Operators

Misc Operators

Arithmetic Operators

Example:

Assume variable A holds 1 and variable B holds 7 then:

Operator	Description	Example
+	Adds two operands	A + B = 8
-	Subtracts second operand from the first	A - B = -6
*	Multiplies both operands	A * B = 7
/	Divides numerator by de-numerator	B / A = 7
%	Modulus Operator and remainder of after an integer division	B % A = 0
++	Increment operator increases integer value by one	A++ = 2
--	Decrement operator decreases integer value by one	A-- = 0

Relational Operators

Assume variable A holds 30 and variable B holds 10, then:

Show Examples

Operator	Description	Example
==	Checks if the values of two operands are equal or not, if yes then condition becomes true.	(A == B) is not true.
!=	Checks if the values of two operands are equal or not, if values are not equal then condition becomes true.	(A != B) is true.

> Checks if the value of left operand is greater than the value of right operand, if yes then condition becomes true. (A > B) is true.

< Checks if the value of left operand is less than the value of right operand, if yes then condition becomes true. (A < B) is not true.

>= Checks if the value of left operand is greater than or equal to the value of right operand, if yes then condition becomes true. (A >= B) is true.

<= Checks if the value of left operand is less than or equal to the value of right operand, if yes then condition becomes true. (A <= B) is not true.

Logical Operators

Assume variable A holds Boolean value true and variable B holds Boolean value false, then:

Operator Description Example

&& Called Logical AND operator. If both the operands are non zero then condition becomes true. (A && B) is false.

|| Called Logical OR Operator. If any of the two operands is non zero then condition becomes true. (A || B) is true.

! Called Logical NOT Operator. Use to reverses the logical state of its operand. If a condition is true then Logical NOT operator will make false. !(A && B) is true.

Bitwise Operators

Bitwise operator works on bits and perform bit by bit operation. The truth tables for &, |, and ^ are as follows:

p	q	p & q	p | q	p ^ q
0	0	0	0	0
0	1	0	1	1
1	1	1	1	0

1 0 0 1 1

Operator Description Example

& Binary AND Operator copies a bit to the result if it exists in both operands.

| Binary OR Operator copies a bit if it exists in either operand.

^ Binary XOR Operator copies the bit if it is set in one operand but not both.

~ Binary Ones Complement Operator is unary and has the effect of 'flipping' bits.

<< Binary Left Shift Operator. The left operands value is moved left by the number of bits specified by the right operand.

>> Binary Right Shift Operator. The left operands value is moved right by the number of bits specified by the right operand.

Assignment Operators

There are following assignment operators supported by CDollarcc:

Operator Description Example

= Simple assignment operator, Assigns values from right side operands to left side operand C1 = A1 + B1 assigns value of A1 + B1 into C1

+= Add AND assignment operator, It adds right operand to the left operand and assign the result to left operand C 1+= A1 is equivalent to C 1= C1 + A1

-= Subtract AND assignment operator, It subtracts right operand from the left operand and assign the result to left operand C1 -= A1 is equivalent to C 1= C1 - A1

*= Multiply AND assignment operator, It multiplies right operand with the left operand and assign the result to left operand C1 *= A1 is equivalent to C1 = C1 * A1

/= Divide AND assignment operator, It divides left operand with the right operand and assign the result to left operand C 1/= A1 is equivalent to C1 = C1 / A1

%= Modulus AND assignment operator, It takes modulus using two operands and assign the result to left operand C1 %= A1 is equivalent to C1 = C1 % A1

<<= Left shift AND assignment operator C1 <<= 2 is same as C1 = C1 << 2

>>= Right shift AND assignment operator C 1>>= 2 is same as C 1= C1 >> 2

&= Bitwise AND assignment operator C1 &= 2 is same as C 1= C1 & 2

^= bitwise exclusive OR and assignment operator C1 ^= 2 is same as C1 = C1 ^ 2

|= bitwise inclusive OR and assignment operator C1 |= 2 is same as C1 = C1 | 2

Miscellaneous Operators

There are few other important operators including sizeof, typeof and ? : supported by Cdollarcc.

Operator Description Example

sizeof() Returns the size of a data type. sizeof(int), returns 4.

typeof()Returns the type of a class. typeof(StreamReader);

& Returns the address of an variable. ANDa; returns actual address of the variable.

* Pointer to a variable. *a creates pointer named 'a' to a variable.

? : Conditional Expression If Condition is true ? Then value A : Otherwise value B

is Determines whether an object is of a certain type. If(Girafee is animal) // checks if Girafee is an object of the Animal class.

as Cast without raising an exception if the cast fails. Object obj = new StringReader("Wilmix");

StringReader r = obj as StringReader

Operator Precedence in CDollarcc

Operator precedence of the expression.some operators have higher precedence than others; for example, the multiplication or division operator has higher precedence than the addition operator.

For example x = 6 + 12 * 2; here, x is assigned 30, not 36 because operator * has higher precedence than +, so the first evaluation takes place for 12*2 and then 6 is added into it.

Here, operators with the highest precedence appear at the top of the table, those with the lowest appear at the bottom. Within an expression, higher precedence operators are evaluated first.

Category	**Operator**	**Associativity**
Postfix	() [] -> . ++ - -	Left to right
Unary	+ - ! ~ ++ - - (type)* & sizeof	Right to left
Multiplicative	* / %	Left to right
Additive	+ -	Left to right
Shift	<< >>	Left to right
Relational	< <= > >=	Left to right
Equality== NOT=		Left to right
Bitwise AND	&	Left to right
Bitwise XOR	^	Left to right
Bitwise OR	|	Left to right
Logical AND	AND	Left to right
Logical OR	OR	Left to right
Conditional	?:	Right to left
Assignment	= += -= *= /= %=>>= <<= &= ^= |=	Right to left
Comma	,	Left to right

==========

UNIT-2 : CDollar Statements

==========

Cdollar Statements consists of Print statements,

Read Statements , LOOPING Statements

Read Statements

Console.ReadKey();==> Read a vaue from console

Read .sreadln() => Read a String

Read .creadln() => Read only Character

Print Statements

SYNTAX:

CDollar.out.println(String +value);

SYNTAX:

/* USAGE OF PRINTLN */

Print. Println(String s1,int t)

Print. Println(String s1,char t)

Print. Println(String s1,String t)

Print. Println(String s1,double t)

Print. Println(String s1,float t)

Print. printf(String s1,int t)

Print. printf(String s1,char t)

Print. printf(String s1,String t)

Types of Looping Statement

==========

For Loop

========

For Loop operates when the condition met >= or <= or < or >.

At first counter is intialized to a value and it is followed by a condition

and it is followed by increment or decrement operator

A block inside the for loop to be executed if the condition met until false.

SYNTAX:

=======

for (index=intialize value; index <> condition ; incrementor or decrementor)

{

<! BLOCK STATEMENTS !>

}

While Loop

==========

While Loop operates when the condition met >= or <= or < or > or == .which is tested at the TOP of the loop.

A block inside the WHILE loop to be executed if the condition met until false.

SYNTAX:

=======

while (index <> condition)

{

<! BLOCK STATEMENTS !>

}

Do – While Loop

================

Do - While Loop operates when the condition met >= or <= or < or > or == ; which is tested at the bottom of the loop.

A block inside the Do-WHILE loop to be executed if the condition met until false.

SYNTAX:

=======

do

{

<! BLOCK STATEMENTS !>

}

while (index <> condition)

foreach

========

The for-each loop introduced in CDollarc. It is mainly used to traverse array or collection elements.

The advantage of for-each loop is that it eliminates the possibility of bugs and makes the code more readable.

Advantage of for-each loop:

==========

It makes the clear consise of the code.

It eliminates the possibility of programming errors.

SYNTAX:

=======

CDollarc

========

for (index : collections)

{

<! BLOCK STATEMENTS !>

}

CDollarcc

========

for (index in collections)

{

<! BLOCK STATEMENTS !>

}

Types of Conditional Statement

==========

If Statement

==========

If Statement operates when the condition met it will

execute the block inside the if statement.

SYNTAX:

=======

if (condition1 ..... Condition.n)

{

<! BLOCK STATEMENTS>

}

If – Else statement

====================

If -Else Statement operates when the condition met it will

execute the block inside the if statement

or else execute the block inside else statement.

SYNTAX:

=======

if (condition1 ..... Condition.n)

{

<! BLOCK STATEMENTS>

}

else

{

<! BLOCK STATEMENTS>

}

If- Else-if statement

==========

If -Else Statement operates when the condition met it will

execute the block inside the if statement

or else execute the block inside if -else statement followed by a condition.

SYNTAX:

=======

if (condition1 ..... Condition.n)

{

<! BLOCK STATEMENTS>

}

else if (condition1 ..... Condition.n)

{

<! BLOCK STATEMENTS>

}

Switch Statement

==========

Switch statement will test for the eqaulity when there is match with the value of expression.

The Statement inside the default statement is executed last when if none of the above case is satisfied.

if the statement is not followed by break then

another switch statement with equality is executed next.

or else it will skip that statement.

SYNTAX:

=======

```
switch (variable) {

 case v1:
      statements
      break;
 case v2:
      statements
      break;
 case v3:
 case v4:
      statements
 . . .
 default:
      statements
      break;
}
```

Types of Flow Control Statement

==========

Return Statement

==========

Return Statement is used to return a value

when a Function is a return type.

syntax: return value;

Continue Statement

==========

Continue statement is used to continue the loop.

SYNTAX:

==========

continue;

Break Statement

==========

Break statement is used to Skip from the loop.

SYNTAX:

=======

break;

Goto Statement

==========

Goto Statement is used as a climber to goto another block and execute

it.

SYNTAX:

=======

goto label;

Throw Statement

==========

Usually the throw statement is used with try-catch or try-finally statements.

A throw statement can be used in a catch block to re-throw the exception that the catch block caught.

SYNTAX:

=======

throw exception;

ARRAYS

ARRAY is to store a value in a location

which uses stack datastructures..

SYNTAX for one dimension and multi dimension

==========

<DATATYPE> <variablename> Array [dimension1] ... [dimension-n]

eg)

int a11 Array [100];

```
a11[0]=1000;
CDollar.out.println("/n"+a11[0]);
```

O/p

1000

CDollar Pointers

What is Pointers?

Variables that hold memory address are called pointers.

Why we mainly use Pointers?

Pointers reduces the length and complexity of the program,

They increase the execution speed.

It holds the memmory addres..

SYNTAX of CDollar Pointers:

{*} <pointername> Pointers (<VALUE>);

CDollar Functions

Functions are otherwise known as methods or apis can return or not return a value.

Functions are of two types with this cases they are

A) Function with or without return type using or without parameters.

b) CDollar Operator overloading functions

SYNTAX:

=======

In CDollar they are basically declared like this:

<visibility> <return type> <name>(<parameters>)

{

<function code>

}

CDollar Operator Overloading function:

A function using opertor to perform operations

on a functions with parameters.

eg)

public Shared void operator *(int s1 ,int s2)

{

s3=s1 * s2;

```
CDollar.out.println(""+s3);

}

public  Shared void  LIB( )

{

operator *(10,10);

// You are passing * Multiply Operator in the main Program

operator *(200,10000);

}
```

Program -1 : CDollar functions with Pointers

```
<CDollar>

<IMPORT>

<%

public  class  func

{

Shared int  a=100;

Shared {*} l1 Pointer(a);

Shared int  b=10000;

Shared {*} l2 Pointer(b);


Shared {*} l3 Pointer(0);

 public void  CC( ) throws  <EXE>

{
```

```
int  a=0;
                        func.exchange(l1,l2);
CDollar.out.println(""+ l1.get(0)+""+l2.get(0));
}
public Shared void exchange(<OBJECT> a,<OBJECT>  b)
{
l3=l1;
l1=l2;
l2=l3;
}
}
%>
?>
```

==========

UNIT -3: CLASS AND OBJECTS

==========

Coding Standards of CDollar

<CDollar>

<IMPORT>

<USE> package;

<%

%>

?>

Note : <% and %> is used to write class and it's logic.

ALL Program should Start with <CDollar> means starting of a Program and

succeded by <IMPORT>

to load all CDollar packages and ?> Means End of the Program.

but we use <USE> to load the particular packages and we save the memory.

What do you meant by CDollar class and Object?

Class defines a collection of objects,api ,constants,and variables;

that is shared by an object of a class.

What do you meant by abstract class?

It defines the common properties and behaviour of a class.

In which Scenario Abstract and interface is used? WHy?

Interface:

==========

–> *If your child classes should all implement a certain group of methods/functionalities but each of the child classes is free*

to provide its own implementation then use interfaces.

interface is called as friend in Cdollar.

eg) CLASS C extends A, C

Class C extends A,c can be achieved using interface

which is other wise known as friend f(x) in Cdollar.

This can be written in another form of cdollar as ....

eg)

friend A

{

}

friend C

{

}

class c --> A, c

Abstract Classes

==========

–> When you have a requirement where your base class should provide default implementation of certain methods

whereas other methods should be open to being overridden by child classes use abstract classes.

–> The purpose of an abstract class is to provide a common definition of a base class that multiple derived classes can share.

For example a class library may define an abstract class that is used as a parameter to many of its

functions and require programmers using that library to provide their own implementation of the class

by creating a derived class.

```
abstract   abc

{


abstract  void  display();

}


public   class   abc1 <---  abc

{

public  void  display()


{


CDollar.out.println("welcome");
```

}

}

Use an abstract class

==========

When creating a class library which will be widely distributed or reused—especially to clients, use an abstract class in preference to an interface.

Use an abstract class to define a common base class for a family of types.

Use an abstract class to provide default behavior.

Subclass only a base class in a hierarchy to which the class logically belongs.

Use an interface

==========

When creating a standalone project which can be changed at will, use an interface in preference to an abstract class; because, it offers more design flexibility.

Use interfaces to introduce polymorphic behavior without subclassing and to model multiple inheritance—allowing a specific type to support numerous behaviors.

Use an interface to design a polymorphic hierarchy for value types.

Use an interface when an immutable contract is really intended.

A well-designed interface defines a very specific range of functionality. Split up interfaces that contain unrelated functionality.

Program -1: Abc5.cdollar

==========

<CDollar>

<%

abstract class Abc51

{

abstract void display();

}

```
public class Abc5 <--- Abc51


{
 Shared void display()
{
CDollar.out.println("Wilmix"+"jemin");
}
 public void CDOLLAR-Main( )

{
display();

}
}
%>

?>
```

How to compile it?

```
CDollarc abc1.cdollar
```

Output:

```
======
```

When you run using CDRUN....

K:\CDollar>CDRUN abc1

you will get a error ....

how you find error?

type out.txt in command prompt

K:\CDollar>type out.txt

Abc5.:30: error: display() in Abc5 cannot override display() in Abc51

static void display()

^

overriding method is static

1 error

Program-2: abcd.cdollar

==========

<CDollar>

<%

class abc

{

```
void display(String s)

{

CDollar.out.println("We learn C , Dotnet ,and ,CDollar");

}

}

class abcd <--- abc

{

void display(String s)

{

<SUPER>(s);

CDollar.out.println("We learn C , Dotnet ,and ,JDollar");

}

}

%>

?>

K:\CDollar>type out.txt
```

abcd:30: error: call to super must be first statement in constructor

super(s);

^

1 error

Program-3: A.cdollar

==========

<CDollar>

<%

class A

{

public A() { CDollar.out.println("A's called"+"n"); }

}

class B

{

```
public B()  { CDollar.out.println("B's  called"+"n"); }

}


public class C

{

public C()  { { CDollar.out.println("C's  called"+"n"); } }



public void  CDOLLAR-Main( ) throws <EXE>

{

   <NEW> A();

   <NEW> B();

   <NEW> C();

}

}


%>

?>
```

Input:

```
=======

CDollarc  A.cdollar
```

Output:

```
=======
```

K:\CDollar>CDRUN C

<table bgcolor=green>

<td>A's calledn B's calledn C's calledn <td>

</table>

A's calledn B's calledn C's calledn

Program-4: Duplicates.cdollar

==========

<CDollar>

<USE> <CJAVA>.util.;*

<%

public class Duplicates {

public void CDOLLAR-Main( ) throws <EXE>

{

```
    <S><Emp> ts = <NEW> Tree<S><Emp>(<NEW> EmpComp()); //<S> indicates set which will learn in CDollar collections


//which remove duplicates.. now pass the employee object in a s set.



    ts.add(<NEW> Emp(201,"John",40000));
    ts.add(<NEW> Emp(302,"Krish",44500));
    ts.add(<NEW> Emp(146,"Tom",20000));
    ts.add(<NEW> Emp(543,"Abdul",10000));
    ts.add(<NEW> Emp(12,"Dinesh",50000));
    //adding duplicate entry
    ts.add(<NEW> Emp(146,"Tom",20000));

    ts.add(<NEW> Emp(7777,"777",7777777));
    //check duplicate entry is there or not
    for(Emp e:ts){
       CDollar.out.println(e);
    }
  }
}

class EmpComp --> Comparator<Emp>{

  @Override
  public int compare(Emp e1, Emp e2) {
```

```
        if(e1.getEmpId() == e2.getEmpId()){
            return 0;
        } if(e1.getEmpId() < e2.getEmpId()){
            return 1;
        } else {
            return -1;
        }
    }
}

class Emp {

    private int empId;
    private <Str> empName;
    private int empSal;

    public Emp(int id, <Str> name, int sal){ // <Str>  means   String  in  CDollar
        <IS>.empId = id;
        <IS>.empName = name;
        <IS>.empSal = sal;
    }

    public int getEmpId() {
        return empId;
    }
```

```
public void <S>EmpId(int empId) {
    <IS>.empId = empId;
}

public <Str> getEmpName() {
    return empName;
}

public void <S>EmpName(<Str> empName) { // <S> means set in cdollar
    <IS>.empName = empName;
}

public int getEmpSal() {
    return empSal;
}
public void <S>EmpSal(int empSal) {
    <IS>.empSal = empSal;

//<IS> means this in cdollar
}

public <Str> to<Str>(){
    return empId+" : "+empName+" : "+empSal;
}
```

}

%>

?>

Compile using Duplicates.cdollar

Output:

G:\CDollar>CDRUN Duplicates

<table bgcolor=green>

<td>7777 : 777 : 7777777543 : Abdul : 10000302 : Krish : 44500201 : John : 40000

146 : Tom : 2000012 : Dinesh : 50000<td>

</table>

7777 : 777 : 7777777543 : Abdul : 10000302 : Krish : 44500201 : John : 40000146

: Tom : 2000012 : Dinesh : 50000

Program-5: Geometry.cdollar

==========

<CDollar>

<%

```
class Polygon {
  Shared int width, height;
  public Shared int s_values (int a, int b)
     { width=a; height=b; return(0); }
}

class Rectangle  <--- Polygon {
  public int area()
     { return width*height; }
}

class Triangle  <--- Polygon {
  public int area()
     { return width*height/2; }
}

class  Geome<TRY>{
 public void  CDOLLAR-Main( ) {
  Rectangle rect = <NEW>  Rectangle();
  Triangle trgl= <NEW> Triangle();

  int t= Polygon.s_values (4,5)  * Polygon.s_values (4,5);
  CDollar.out.println( "Rect area="+rect.area());
  CDollar.out.println( "Triange  Area="+trgl.area());
```

```
}
}
%>


?>

F1:\CDollar>CDRUN Geometry
<table bgcolor=green>
<td>Rect area=20Triange  Area=10<td>

</table>
Rect area=20Triange  Area=10
```

Program-6: student.cdollar

```
==============================

<CDollar>
<%
```

```
public class student

{

Shared int sno; Shared int m1,m2,m3;

Shared double avg=0.0;

 public void CDOLLAR-Main( )

        {



student s = <NEW> student();

sno=1;

m1=234;

m2=456;

m3=656;

avg=((m1=m2+m3)/3);

CDollar.out.println(""+avg);

}

}
```

```
%>


?>
```

Output:

```
<table bgcolor=green>

<td>370.0<td>


</table>

370.0
```

Program-7: TA.cdollar

```
======================

<CDollar>

<%

class Person {

  // Data members of person


  Person(){}

public Person(int x)  { CDollar.out.println("Person::Person(int ) called"+x);   }

}
```

```
class Faculty  {

public Faculty(int x)

{

<NEW> Person(x);
      CDollar.out.println("Faculty::Faculty(int ) called"+x);
   }
}
```

```
class Student  {
  // data members of Student
public  Student(int x) {
<NEW> Person(x);
       CDollar.out.println("Student::Student(int ) called"+ x);
   }
}
```

```
class TA   {
   TA(int x)  {
```

```
   <NEW> Faculty(x);

   <NEW>  Student(x);



   CDollar.out.println("TA::TA(int ) called"+x);



   }



 public void  CDOLLAR-Main( )

{

   <NEW>  TA(30);



}

}

%>



?>
```

OUTPUT:

<table bgcolor=green>

<td>Person::Person(int) called30Faculty::Faculty(int) called30Person::Person(i

nt) called30Student::Student(int) called30TA::TA(int) called30<td>

</table>

Person::Person(int) called30Faculty::Faculty(int) called30Person::Person(int)

called30Student::Student(int) called30TA::TA(int) called30

Program-8: WHILES.cdollar

==========

<CDollar>

<%

public class WHILES

{

public Shared void main(String args[]) throws <EXE>

{

int a=0;

```
while (a <=10)
{
a++;
CDollar.out.println("value="+a);
if ( a==9) continue;
else break;
}



}
}

%>

?>
```

output

value=1

INNER and OUTER CLASS

Inner class are nested inside outer class even if the fields

declared as private members.

<CDollar>

<IMPORT>

```
<%
class Outer {
private int privInt = 10;
public void createInnerClass() {
Inner inClass = <NEW> Inner(); //creating innerclass object and calling method
access.
inClass.access();
}
class Inner { // Inner class
public void access() {
CDollar.out.println("The outer classs privInt is " + privInt);
}
}
}
%>
```

OVERLOADING AND OVERRIDING functions

OVERLOADING

A functions with same name but different signature is called

as Overloading concept.

public void display(int i , String j) {}

=> If you pass int and string values from main program it will call

this function.

ABC a = <NEW> ABC(10,"ewew");

public void display(int i, int j) {}

ABC a = <NEW> ABC(10,20);

=> If you pass int and int values it will call this function.

OVERRIDING

A function with same name and same signature

will cause overriding....

Overriding can be avoided by using super() keyword.

in another class.

DATASTRUCTURES in cdollar

Program-1: abc1.cdollar

<CDollar>

<%

class LL1

{

private LL1 nextNode = null;

private String datum = null;

public LL1()

{

LL1 list = <NEW> LL1("0 C");

list.add("1 CDOLLAR");

```
list.add("2 GDOLLAR");

list.add("3 CHDOLLAR");

list.add("4 JDOLLAR");

list.add("5 JSTAR");

list.add("6 JSAUCER");

for (int i = 0; i NOT= list.size(); i = i + 1)

{

CDollar.out.println(""+list.get(i).StringConvert());

}

}

public LL1(String datum)

{

<SUPER>();

<IS>.datum = datum;

}

public void add(String datum)

{

if (nextNode NOT= null)

{

nextNode.add(datum);

return;

}

nextNode = <NEW> LL1(datum);

}

public String get(int i)
```

```
{
if (i == 0)
return datum;
return nextNode.get(i - 1);
}
public int size()
{
if (nextNode == null)
return 1;
return nextNode.size() + 1;
}
}
class abc1
{
public void  CDOLLAR-Main( )
{
int i;
CDollar.out.println("\nList of Technologies in year "+"2016 ");
LL1 list = <NEW> LL1();
String i1="weew";
CDollar.out.println("wilmix"+i1);
CDollar.out.println(" \njemin"+"is going");
}
}
%>
```

?>

How to compile it?

CDollarc abc1.cdollar

How to run CDollar and see the output stored in .wl file?

K:\CDollar>CDRUN abc1

<table bgcolor=green>

<td>List of Technologies in year 2016 0 C1 CDOLLAR2 GDOLLAR3 CHDOLLAR4 JDOLLAR5

JSTAR6 JSAUCERwilmixweew jeminis going<td>

</table>

List of Technologies in year 2016 0 C1 CDOLLAR2 GDOLLAR3 CHDOLLAR4 JDOLLAR5 JSTA

R6 JSAUCERwilmixweew jeminis going

==========

WHILES.cdollar

```
<CDollar>


<%
public class WHILES
{
  public Shared void main(String  args[])  throws  <EXE>
{
int a=0;
while (a <=10)
{
a++;
CDollar.out.println("value="+a);
if ( a==9) continue;
else break;
}



}
}


%>


?>
```

output

value=1

OPERATOR OVERLOADING

Operator overloading is an important concept in CDollar. It is a type of polymorphism in which an operator is overloaded to give user defined meaning to it. Overloaded operator is used to perform operation on user-defined data type. For example '+' operator can be overloaded to perform addition on various data types, like for Integer, String(concatenation) etc.

EXAMPLES:

CDOLLAR PROGRAM With OPerator Overloading

```
<CDollar>
<PACK> Area
{
  <CLASS> Rectangle
  {
    private double length;   // Length of a Rectangle
    private double breadth;  // Breadth of a Rectangle
    private double height;   // Height of a Rectangle

    public double GETKEYVolume()
    {
      return length * breadth * height;
```

```
}

public void <SET>Length( double len )
{
  length = len;
}

public void <SET>Breadth( double bre )
{
  breadth = bre;
}

public void <SET>Height( double hei )
{
  height = hei;
}

// Overload + operator to add two Rectangle objects.
public Shared Rectangle operator+ (Rectangle b, Rectangle c)
{
  Rectangle Rectangle <NEW>Rectangle();
  Rectangle.length = b.length + c.length;
  Rectangle.breadth = b.breadth + c.breadth;
  Rectangle.height = b.height + c.height;
  return Rectangle;
```

```
    }


  }


  <CLASS> Tester
  {
    public FLOAT CDollar-MAIN()
     {
       Rectangle rectangle1 <NEW>Rectangle();   // Declare rectangle1 of type Rectangle
       Rectangle rectangle2 <NEW>Rectangle();   // Declare rectangle2 of type Rectangle
       Rectangle rectangle3 <NEW>Rectangle();   // Declare rectangle3 of type Rectangle
       double volume = 0.0;    // Store the volume of a Rectangle here


       // Rectangle 1 specification
       rectangle1.<SET>Length(6.0);
       rectangle1.<SET>Breadth(7.0);
       rectangle1.<SET>Height(5.0);


       // Rectangle 2 specification
       rectangle2.<SET>Length(12.0);
       rectangle2.<SET>Breadth(13.0);
       rectangle2.<SET>Height(10.0);
//<SET>  means  set  in  Cdollar
       // volume of Rectangle 1
       volume = rectangle1.GETKEYVolume();
```

```
        <PRINTLN>("Volume of rectangle1 : {0}", volume);

        // volume of Rectangle 2
        volume = rectangle2.GETKEYVolume();
        <PRINTLN>("Volume of rectangle2 : {0}", volume);

        // Add two object as follows:
        rectangle3 = rectangle1 + rectangle2;

        // volume of Rectangle 3
        volume = rectangle3.GETKEYVolume();

//GETKEY means get in cdollar
        <PRINTLN>("Volume of rectangle3 : {0}", volume);

    }
  }
}
```

Advanced Topics in FILE

<BUFFINPUTSTREAM> =>you can use <MARK> and <RESET> keyword

to move backward in a buffered input stream.

<DOUTPUTSTREAM> =>

which can be used to write the stream or to do other operations on the stream.

IT USES <WRITEBYTES> TO Write into file.

<DINPUTSTREAM > => USED TO READ STRING FROM

THE FILE. It Uses <READBYTES> TO READ FROM A FILE.

<BREADER> =>Buffered reader uses <READLINE> to read a line from a

file.

<BWRITER> => Buffered writer uses <WRITELINE> to write a line from a

file.

<INPUTREADER> =>

The InputReader is intended to wrap an InputStream, thereby turning the byte based input stream into a character based Reader.

<FILE> => used fort creating reading ,Appending, and writing string to a file.

Note: Character files are read and written using <FileWriter> and <FileReader>. Writing Streams of character is best suited using FileWriter.

FileReader

FileReader assumes that default character encoding and default byte-buffer size are appropriate.

FileReader reads character stream.

<FILESREADER>

FileWriter

FileWriter assumes that default character encoding and default byte-buffer size are appropriate.

<FILESWRITER>

OUTPUTWRITER

<OUTPUTWRITER>

The OutputWriter is intended to wrap an OutputStream, thereby turning the byte based output stream

into a character based Writer.

Better than all this random Access file is the best use....So file concepts are over. SO we ask developers to concenterate on RandomAccess file....

==========

UNIT -4 : CDOLLAR COLLECTIONS

==========

String

String is represented by <Str> notation.

a) <Str> <strname> = new <Str> ();

This statement is used to create an object...

b) <Str> <strname> = value;

But this Statement will not create an object...

but it stores the value...

the differences between

a) if (s1==s2)

== means it is used to compare the values...

b) if s1.EQ(s2)

EQ means EQUALS is used to compare objects..

CDOLLAR COLLECTIONS

Why we use collections in our software development?

Because for various projects we will use various kinds of

datastructures that's why collections are focused.

Q: What are the Important concepts of Software Development?

ARRAYLIST

SYNTAX:

<AList> <Type> arraylistobjectname = new <AList><Type>();

But type may be Object, int, Double,String,etc.

Why we focus Arraylist ?

Since ArrayList involves Powerful insertion and search mechanism when

compared to array.

So we focus it.

Some built in functions available in ArrayList they are add and remove.

syntax : arraylistobjectname.add(<datatype>);

syntax: arraylistobjectname.remove(<datatype>);

How did you iterate the ArrayList?

<WR> syntax means Iterator; this is the shortest syntax of Iterator.

<WR> iteratorname = <CollectionOBJECT>.record();

LinkedList

<LList> <Type> arraylistobjectname <NEW> <LList><Type>

But type may be Object, int, Double,String,etc.

As according to collection concepts , built in functions are Designed for

LinkedList they are add and remove.

syntax : Linkedlistobjectname.add(<datatype>);

syntax: Linkedlistobjectname.remove(<datatype>);

syntax : Linkedlistobjectname.addFirst(<datatype>);

syntax: Linkedlistobjectname.removeFirst(<datatype>);

syntax : Linkedlistobjectname.addLast(<datatype>);

syntax: Linkedlistobjectname.removeLast(<datatype>);

Actually when you study about Datastructures of LinkedList

and here we Designed the LinkedList using the LinkedList code

as mentioned in above that is LinkedList.c$. And add more functions...

and we use CDollar Generics...

What is the function of LinkedList? Why we use LinkedList?

In ArrayList You can't insert element in to the middle

or first or last so LinkedList is focused....

LinkedList is a Good example of Train....

VECTOR

Vector also has the same Datastructures of ArrayList;

but why we focus? . So vector is simillar to Arraylist.

So we can mention in short notation as VList.

but Vector is synchronized and ArrayList is not Synchronized.

Vector use Enumerator and Iterator but ArrayList use only Iterator.

<VList> <VectorObject> = <NEW> <VList> ();

<VectorObject>.addE(elements);

but vector used add functions

<VectorObject>.first(); => Represent First Element...

<VectorObject>.last(); => Represent Last Element...

<VectorObject>.removeAll(elements); => It is used to remove all elements..

<VectorObject>.removeAt(elements); => remove at Particular position

<VectorObject>.remove(object); => remove the first occurance of the given element

<VectorObject>.remove(index); => Remove by Index or position.

==========

More about COLLECTIONS

SET

So Set is represented in Cdollar as <S>

Syntax:

<S> Objectname = new <S>();

Difference between Set and List?

List allow duplicates but Set did not allow duplicates...

Set did not allow insertion at middle.

For listing the elements in Ascending or descending order

we had to use TreeSet.

TREESET

Treeset represent a collection that uses Tree datastructure for storage

Items in the collections are stored in Ascending or descending order.

<TS> objectname = new <TS>();

objectname.add(elements);

OTHER COLLECTIONS CONCEPTS

<M> => map MEANS IT CONTAINS KEYS AND VALUE PAIRS...

HashSet

SYNTAX:

<HSET> <hashsetname> = <NEW> <HSET>();

HASHMAP

SYNTAX:

<HMAP> <HASHMAPNAME> = <NEW> <HMAP>();

<HASHMAPNAME>.PUT(key,valuepairs);

<HASHMAPNAME>.GETKEY(index);

<HMAP> mp = <NEW> <HMAP>();

mp .PUT(1, 234);

CDollar.out.println(""+mp.GETKEY(1));

HASHTABLE

SYNTAX:

<HTABLE> <HASHTABLENAME> = <NEW> <HTABLE>();

<HASHTABLENAME>.PUT(key,valuepairs);

<HASHTABLENAME>.GETKEY(index);

<HTABLE> mp = <NEW> <HTABLE>();

mp.PUT(1, 234);

CDollar.out.println(""+mp.GETKEY(0));

// This elements can be retrieved by using GETKEY().

note: hash determines a order in which elements are

stored in the hash; SO it will display according

to hash stored order.

ADVANCED CONCEPTS of CDOLLAR

GENERIC STACK

<GS> (we will see later)

ITERATOR

Iterator iterate about collection

in the forward direction and not in backward direction.

and it will iterate record wise from the List or collection.

<WR> it = collectionobj.record();

where collection obj may be list,arraylsit, and so on.

for EG)

<WR> it = ar.record(); //iterate arraylist.

while(it.<HAS>) // if it has more elements from arraylist

{

<OBJECT> el = it.<NEXT>;

//<OBJECT> is the object..

//<NEXT> is used to list next element from the collection

CDollar.out.println(" data= "+el);

//print the elements

}

Listiterator:

Normally Iterator will not move backward directions

by using iterator. It can be done by using Listiterator.

<LR> <listiterateobject> = Object.<LISTLR>();

eg)

<LR> it1 = ar.<LISTLR>; // iterate the arraylist in backward direction

if you use <PREVIOUS> keyword

while(it1.<HASP>) // if the iterator has more elements

{

<OBJECT> el1 = it1.<PREVIOUS>;

//move to previous record from arraylist

CDollar.out.println(" data1= "+el1);

//print the object

}

ARRAYSSORT

<A>.<SORT>(arrayname);

SO if you want to sort an array you

must use the keyword <A>.<SORT>(ar);

That means the give array is sorted in ascending order and

store it in array

ARRAYBINARYSEARCH

<A>.<BinarySearch>(arrayname,position)

This will search the array in binarysearch wise...

according to the given position.

Exception and ERROR

Exception is a abnormal condition that arise during

the code sequence at run time.

What are the two Types of Exception?

Checked and Unchecked Exception.

Exception that arise during the run time are called as

Unchecked exception.

Thrown exception are refer to the checked exception.

Unchecked Exception

<Arithmetic> -> Arithmetic exception

<ArrayIndex> -> ArrayIndex outof bound exception

<ArrayStore> -> Assignment to an array of an incompactible type.

<IndexOut> -> Index out of boud exception

<NegativeArraySize> -> Array Created with a negative array size.

<NullPointer> -> Null pointer exception

<NumberFormat> -> invalid conversion of string to numeric format.

typing or giving data string as input in integer datatype.

<SecurityException> -> Attempt to violate security

<StringIndex> ->Attempt to acess index ouside the bounds of a string.

Checked Exception

<ClassNotFound> -.> class not found

<CloneNotFound>-> Clone keyword is absent

<IllegalAcess> -> Access to a class is denied.

<Instanation>-> Attempt to create an object of abstract class or friendly functions

<Interrupted>=> One thread has interrupted by another thread.

<NoSuchField> => A request field doesnot exist

<NoSuchMethod>=> Request emthod doesnot exist.

<TRY> -> try in C/JAVA

<CATCH> -> catch in c/java

<Finally> -> final in c/java

SYNTAX:

<TRY>

{

< Executable good statements>

}

<CATCH> (<EXE> e)

{

CDollar.out.println(""+e);

}

<Finally>

{

<Final block statements>

}

Explanation:

When ever the Exception is true statements inside a try

block is executed; otherwise

statements inside a catch block is executed.

Exception occurs or not

final block get executed..

FINAL in CDOLLAR

UnShared keyword means final in CDollar

eg)

UnShared int i=9;

// if a variable is declared as final

that value can't be changed.

eg)

UnShared class abc

{

.....

}

if the class is declared as UnShared it can't

be overridden.

so if the method is declared as UnShared

such method can't be overriden by another class method.

GARBAGE COLLECTION

<RECYCLE> => Garbage colection

eg) if you allocate elements a=9;

but doesnot use in the program so such object

are garbage collected by using <RECYCLE> keyword.

THREADS

A thread is a path of execution that run on CPU

and process is a collection of thread that share a same virtual

memory.

threads.cdollar

```
<CDollar>

<%

 class threads

{

   public void  CDOLLAR-Main( )

   {

      My thread1 = <NEW> My("thread1: ");

      My thread2 = <NEW> My("thread2: ");

      thread1.<START>;

      thread2.<START>;

      boolean thread1IsAlive = true;
```

```
    boolean thread2IsAlive = true;

    do {

      if (thread1IsAlive AND NOTthread1.isAlive()) {

         thread1IsAlive = false;

        CDollar.out.println("MY   DOG 1 is dead.");

      }

      if (thread2IsAlive AND NOTthread2.isAlive()) {

         thread2IsAlive = false;

         CDollar.out.println("MY  DOG 2 is dead.");

      }

    } while(thread1IsAlive || thread2IsAlive);

  }

}
```

```
class My <--- TH

{

Shared <Str> message[] ={ "CDollar", "is", "combination", "of", "JAVA", "and   c"};



   public My(<Str> id)

   {

      <SUPER>(id);

   }



   public void <RUN>

   {
```

```
    SyncOut.displayList("welcome",message);

  }



  void randomWait()

  {

    <TRY> {

     <SLEEP>((long)(3000*Math.random()));

    } <CATCH> (<EXE> x) {

      CDollar.out.println("Interrupted!");

    }

  }

}
```

```
class SyncOut

{

public Shared  void displayList(<Str> name,<Str> list[])

{

for(int i=0;i<list.length;++i) {

My t = (My) TH.currentTH();

t.randomWait();

CDollar.out.println(name+list[i]);

}

}

}

%>

?>
```

OUTPUT:

<table bgcolor=green>

<td>welcomeCDollarwelcomeiswelcomeCDollarwelcomecombinationwelcomeiswelcomeofwel

comecombinationwelcomeofwelcomeJAVAwelcomeJAVAwelcomeand cMY DOG 2 is dead.we

lcomeand cMY DOG 1 is dead.<td>

</table>

welcomeCDollarwelcomeiswelcomeCDollarwelcomecombinationwelcomeiswelcomeofwelcome

combinationwelcomeofwelcomeJAVAwelcomeJAVAwelcomeand cMY DOG 2 is dead.welcom

eand cMY DOG 1 is dead.

concat.cdollar

<CDollar>

<USE> <CJAVA>.io.*;

<USE> <CJAVA>.util.*;

<%

// Advanced concepts : Here Friends is a helper function used in other classes

friends toy

{

public void display();

}

// friends will act like friend function in C++.

```
class concat1 --> toy
//---> indicates implements toy
{
public void display()
{
CDollar.out.println("CDollar is going to be finished");
}
}
public class concat
{
Shared int counter=4;
//Shared means static and which can be accessed over all the objects of
variables.
//<EXE> means throws Exception
// <S> means set
//<WR> indicates iterator
//<SBD> means string builder
//<SB> is String Buffer
// Differences is StringBuffer is Synchronized and
//and String Builder is not Synchronized
//AND means && in JAVA
//NOT means ! in JAVA
//TH means Thread in CDollar
//int <Arrayname> Array [nooflocations] (ARRAY SYNTAX)
//addE means AddElements
```

```
public  Shared void  LIB( ) throws <EXE>
{
int i;
String i1="weew";
Print.Println("wilmix",i1);
Print.Println(" \njemin","is going");
<S> <Integer> ar2 = <NEW> <TS> <Integer> ();
ar2.add(100);
<WR> it = ar2.record();
while (it.<HAS>)
{
<OBJECT> el= it.next();
Print.Println("/n",el.StringConvert());
}
<SBD> sb = <NEW> <SBD>("weldone wilmix");
int a;
a=105;
if (( a >100) AND (a<=106))
CDollar.out.println("/n"+a);
if (a NOT= 0)
CDollar.out.println("/n"+a);
a+=2+counter;
if (a # 107)
CDollar.out.println("/n"+a);
TH t = <NEW> TH();
```

```
int a11[] <Array> int[100];

a11[0]=1000;

CDollar.out.println("/n"+a11[0]);

<VList> v = <NEW> <VList>();

v.addE(100);

CDollar.out.println("/n"+v.get(0));

v.removeAt(0);

v.addE(1001);

v.addE(1002);

CDollar.out.println("/n"+v.first());

// This is the program for writing program in random access file ;

//it means it can be randomly inserted and retrieved at any location */

//writing word in random accessfile

<RANDOMACCESSFILE> rf = <NEW> <RANDOMACCESSFILE>("concat.c$","rw");

rf.write("Hello World".getBytes());

rf.close();

rf.close();

concat1 obj = <NEW> concat1();

obj.display();

}

}

%>

?>
```

Compile:

```
CDollarc  concat.cdollar
```

So What will be the Output?

K:\CDollar>CDRUN concat

<table bgcolor=green>

<td>wilmixweew jeminis going/n100/n105/n105/n111/n1000/n100/n1001<td>

</table>

wilmixweew jeminis going/n100/n105/n105/n111/n1000/n100/n1001

GEN.cdollar

```
<CDollar>
<%
 public class  GEN<T>

 {
 T t;
 T  display(T  t1)

 {

 t=t1;
 return(t);
```

```
 }

 public void  CDOLLAR-Main( )

 {

 GEN <Integer> i  = <NEW>  GEN<Integer> ();

CDollar.out.println(""+ i.display(10));

 }

 }

%>

?>
```

```
F1:\CDollar>CDRUN GEN

<table bgcolor=green>

<td>10<td>

111
```

</table>

10

misc.cdollar

==========

<CDollar>

<USE> <CJAVA>.util.*;

<%

abstract class misc <--- TH

{

<VOLATILE> int v1; //synchronized happen at variable level

Shared <TRANS> int v;

```
~ //destructor in  cdollar

{


CDollar.out.println("object  is    deleted");


}

public  int  getnum1()


{







return(v1);

}


Shared int s3;

public Shared void  operator *(int s1 ,int s2)

{


s3=s1 * s2;


CDollar.out.println(""+s3);

}


 public void  CDOLLAR-Main( ) throws  <EXE>
```

```
{

int  a[]  <Array> int[1000];



 operator *(10,10);//operator overloading

 operator *(200,10000);//operator overloading



<AList>  ar  = <NEW>  <AList>();



for(int  i=999;i>=0;i--)
{

a[i]=i;

ar.add(i);
}

<A>.<SORT>(a);
```

CDollar.out.println(" binary "+<A>.<BinarySearch>(a,5));//perform binary search and element 5 occurs at 5th location

<WR> it = ar.record();

while(it.<HAS>)

{

<OBJECT> el = it.<NEXT>;

CDollar.out.println(" data= "+el);

}

<LR> it1 = ar.<LISTLR>;

while(it1.<HASP>)

{

<OBJECT> el1 = it1.<PREVIOUS>;//move previous

CDollar.out.println(" data1= "+el1);

```
}
```

```
<------
while (es.<HASEMORE>)
{
<OBJECT> el11 = es.<NEXTEL>;
CDollar.out.println(" data1= "+el1);
}
------>
<DATE> d2 = <NEW> <DATE>();
CDollar.out.println("month="+<Month>);
CDollar.out.println("Year="+<Y>);
CDollar.out.println("Hour="+<H>);
CDollar.out.println("Sec="+<SEC>);
```

```
v=20;

<FOUTPUTSTREAM> os1 = <NEW> <FOUTPUTSTREAM>("out11.txt");

<OOUTPUTSTREAM> d = <NEW> <OOUTPUTSTREAM>(os1);

d.<WRITEOBJ>(v);// v is transient so it is saved.

d.<WRITEOBJ>(ar);//ar is not transient so not saved

<FINPUTSTREAM> osd = <NEW> <FINPUTSTREAM>("out11.txt");

<OINPUTSTREAM> br = <NEW> <OINPUTSTREAM>(osd);

<OBJECT> ar7 = br.<OBJECTREAD>;

CDollar.out.println("data="+ar7);


<STACK> s= <NEW> <STACK>();

s.<PUSH>(100);

s.<PUSH>(2000);

s.<POP>;

CDollar.out.println("stackdata="+s);
```

```
<PRIORITYQUEUE> q = <NEW> <PRIORITYQUEUE>();

q.add(1000);

q.add(544);
q.add(66);
q.add(667888);
CDollar.out.println(""+q);




}




}

%>
```

?>

Output:

1002000000 binary 5 data= 999 data= 998 data= 997 data= 996 data= 995 data= 994

data= 993 data= 992 data= 991 data= 990 data= 989 data= 988 data= 987 data= 986

data= 985 data= 984 data= 983 data= 982 data= 981 data= 980 data= 979 data= 978

data= 977 data= 976 data= 975 data= 974 data= 973 data= 972 data= 971 data= 970

data= 969 data= 968 data= 967 data= 966 data= 965 data= 964 data= 963 data= 962

data= 961 data= 960 data= 959 data= 958 data= 957 data= 956 data= 955 data= 954

data= 953 data= 952 data= 951 data= 950 data= 949 data= 948 data= 947 data= 946

data= 945 data= 944 data= 943 data= 942 data= 941 data= 940 data= 939 data= 938

data= 937 data= 936 data= 935 data= 934 data= 933 data= 932 data= 931 data= 930

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data= 897 data= 896 data= 895 data= 894 data= 893 data= 892 data= 891 data= 890

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53 data= 52 data= 51 data= 50 data= 49 data= 48 data= 47 data= 46 data= 45 data=

44 data= 43 data= 42 data= 41 data= 40 data= 39 data= 38 data= 37 data= 36 data

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a= 26 data= 25 data= 24 data= 23 data= 22 data= 21 data= 20 data= 19 data= 18 da

ta= 17 data= 16 data= 15 data= 14 data= 13 data= 12 data= 11 data= 10 data= 9 da

ta= 8 data= 7 data= 6 data= 5 data= 4 data= 3 data= 2 data= 1 data= 0month=2Year

=1Hour=10Sec=13data=20stackdata=[100][66, 1000, 544, 667888]

Program1.cdollar

==========

<CDollar>

<USE> <CJAVA>.util.*;

<%

class Program1

{

```
 public void  CDOLLAR-Main( )

{


int i;

CDollar.out.println("\nList  of   Technologies  in  year "+"2016 ");




String i1="weew";

CDollar.out.println("wilmix"+i1);


CDollar.out.println("Hiram is going"+"today");

CDollar.out.println("Hiram  Age  is ="+"45 ");


CDollar.out.println("Hiram    is working "+"in  Abc Bank\n");

CDollar.out.println("  \njemin"+"is going");


<TS>   ar2 =  <NEW>  <TS>();


ar2.add("100");

ar2.add("22");


CDollar.out.println("jeminjhjhjh"+ar2.StringConvert());
```

```
CDollar.out.println("no:  2/782 ,ds street,california-2322"+ar2.StringConvert());









}

}

%>

?>
```

output:

List of Technologies in year 2016 wilmixweewHiram is goingtodayHiram Age is =45 Hiram is working in Abc Bank jeminis goingjeminjhjhjh[100, 22]no: 2 /782 ,ds street,california-2322[100, 22]

SYNCHRONIZED:

If multiple clients want to access the shared resource

synchronization provide the way for the multiple clients

not for the specific one.

BIG Program for Synchronization

<CDollar>

<%

class threads

{

public void CDOLLAR-Main( )

{

My thread1 = <NEW> My("thread1: ");

```
My thread2 = <NEW> My("thread2: ");

thread1.<START>;

thread2.<START>;

boolean thread1IsAlive = true;

boolean thread2IsAlive = true;

do {

  if (thread1IsAlive AND NOTthread1.isAlive()) {

     thread1IsAlive = false;

    CDollar.out.println("MY   DOG 1 is dead.");

  }

  if (thread2IsAlive AND NOTthread2.isAlive()) {

     thread2IsAlive = false;

     CDollar.out.println("MY  DOG 2 is dead.");
```

```
        }

      } while(thread1IsAlive || thread2IsAlive);

   }

}
```

```
class My <--- TH

{

Shared <Str> message[] ={ "CDollar", "is", "combination", "of", "JAVA", "and   c"};


   public My(<Str> id)

   {

      <SUPER>(id);
```

```
}



public void <RUN>

{

   SyncOut.displayList("welcome",message);

}



void randomWait()

{

   <TRY> {

    <SLEEP>((long)(3000*Math.random()));

   } <CATCH> (<EXE> x) {

     CDollar.out.println("Interrupted!");
```

```
      }

   }

}


class SyncOut

{

public Shared synchronized void  displayList(<Str> name,<Str> list[])

{

for(int i=0;i<list.length;++i) {

My t = (My) TH.currentTH();

t.randomWait();

CDollar.out.println(name+list[i]);
```

```
}

}

}
```

```
%>

?>
```

Output:

welcomeCDollarwelcomeiswelcomecombinationwelcomeofwelcomeJAVAwelcomeand cMY DOG 1 is dead.welcomeCDollarwelcomeiswelcomecombinationwelcomeofwelcomeJAVAwelcomeand cMY DOG 2 is dead.

WAIT

It WAITS indefinitely for another thread of execution until it receives notify or notify all message.

<WAIT>

NOTIFY AND NOTIFYALL

<NOTIFY> ->

The keyword process waits for a single thread waiting on a

object monitor.

ALL ->

The keyword process waits for a multiple thread waiting on a

object monitor.

JOIN

---

join() method

This Process join with another thread after another thread finishes the

execution.

eg) Thread t1 => Wait for 100 seconds

and Thread t2 => will execute after Thread t1 complets the execution.

This is the meaning of join process in Thread.

CDOLLAR ADVANCED CONCEPTS

STACK

Stack means lastin first out.

A stack is a container of objects that are inserted and removed according to the last-in first-out (LIFO)

principle.

In the pushdown stacks only two operations are allowed: push the item into the stack, and pop the item out of the stack.

<STACK> s= <NEW> <STACK>();

s.<PUSH>(100); // PUSH operator to push the elements into stack

s.<PUSH>(2000);

s.<POP>;

CDollar.out.println(""+s);

Output:

[100]

Priority Queue:

Many applications require that we process items having keys in order, but not necessarily in full sorted order and not necessarily all at once.

Often, we collect a set of items, then process the one with the largest key, then perhaps collect more items, then process the one with the current largest key,

and so forth. An appropriate data type in such an environment supports two operations:

remove the maximum and insert. Such a data type is called a priority queue.

<PRIORITYQUEUE> q = <NEW> <PRIORITYQUEUE>();

q.add(1000);

q.add(544);

q.add(66);

q.add(667888);

CDollar.out.println(""+q);

Output:

[66, 1000, 544, 667888]

Destructor:

Destructor means object is going to be destroyed.

~

{

CDollar.out.println("object is deleted");

// this means object is going to be destroyed.

}

where ~ is the Destructor

GENERICS

GENRICS means which is used to Pass Type as argument as class

for example if you want to pass String , int, float datatypes at the

same time and if you use display method to display the value of any

datatype

so Generic is most useful in that case.

<CDollar>

<%

public class GEN<T>

{

T t;

T display(T t1)

{

```
t=t1;

return(t);

}

public  Shared void  LIB( )

{

GEN <Integer> i = <NEW> GEN<Integer> ();

CDollar.out.println(""+ i.display(10));

}

}

%>

?>
```

==========

UNIT-5 : CDollar Advanced Collections

==========

BUCKET

Bucket are used to store key,value data, and Generated Random number

where datatype may be string ,object ,etc.

SYNTAX:

Bucket<DATATYPE> list = <NEW> Bucket<DATATYPE>(<DATATYPEVALUE>);

list.KeyAdd(<DATATYPEVALUE>);

list.add(<DATATYPEVALUE>);

list.RandomAdd();

list.Display(list);

Advantages

Using Bucket you can also Retrieve the values stored n position.

Searching and Insertion is fast than other DTS.

Random Indexing is possible.

eg) If you store a duplicate value such Random key will be different.

It also used to add many values.

EXTEND

Extend class is used in CDollar since to provide multiple inheritence

about 100000000 classes . Extends class also list values in methods and

constructor values.

Extend means a Bucket contains List of class and it is also

Behave like Bucket. So it is also one of the Advanced concepts in CDollar.

SYNTAX:

EXTEND <<DATATYPE>> list11 = <NEW> EXTEND <<DATATYPE>> (STRING);

list.KeyAdd(<DATATYPEVALUE>);

list.add(<DATATYPEVALUE>);

list.RandomAdd();

list.Display(list);

Advantages:

It is also used to add many values

Indexing is possible

Value can also be list by index and behave like bucket.

It list only the class value and object value.

It is stateless.

PIPE:

PIPE is used to maintain stateful state.

It is used for DataFlow in a Program. We can also add the values,

Constructor values of one class and other class and display it.

It also list the values from the Bucket.

SYNTAX:

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list.Display(list);

Why we Prefer CDollar for software Field?

Used in BILLS, Forms ,Reports,Charts, any software project , GRAPHICS to web etc.

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Used in BILLS, Forms ,Reports,Charts, any software project , GRAPHICS to web etc.

CDollar ADvantages over JAVA and other Programming Languages

A) CDollar is the combination of JAVA , C/C++, and Advanced OOPS.

b) CDollar will only accept the shortest attractive syntax.

c) CDollar also used for construction of any datastructures.

d) CDollar helps the developers to provide inheritance by not using extends

keyword

and call the class in main program when use in linux.

e) CDOLLAR Solves diamond Problem with multiple Inheritance when used in linux.

f) It also supports friendly function, pointers , and structures.

g) CDollar support Virtual memmory and garbage collection.

h) It is efficient, fast and easy to understand, and it is a OOPS Technology.

i) CDollar is a High level language.

j) CDollar is highly portable language

k) Using CDollar you can create any datastructures as libraries and

use it in your Application program.

l) CDollar language is a structured and object programming language.

m) CDollar has OOPS concepts like JAVA.

n) CDollar have the concept of Packages,etc.

o) CDollar have the concept of constructor or destructor and had magic oops concepts.

p) It Support functions with Default Arguments

q) It Supports Exception handling

r) It Support Generic Programming

s) It have pointer and Nodes..

t) CDollar is much simpler oops concepts, which leads to faster development and less mental

overhead.

u) CDollar is almost always explicitly compiled

w) CDollar is easy to learn. CDollar was designed to be easy to use and is therefore easy to write,

compile, debug, and learn than other programming languages.

CDollar is object-oriented. This allows you to create modular programs and reusable code.

CDollar is platform-independent.

x) CDollar creates .wl and .exe or .dll files and it can be used with CDollar main program (CWE EDitor) to create a complete software.

y) CDollar will compile and run at same time where other technology can't

do

z) CDollar is mainly used in complex programming , Billing the

goods,Graphics,etc

AA) CDollar is platform independant language

BB) CDollar is an interactive Technology.

Disadvantages of CDollar Technology

---

a) CDollar doesn't concenterate mostly

on GUI but mostly on invention of new

datastructures,OOPS, Advanced OOPS..

b) CDollar doesnot focused on

cloud computing...

Note: SO CDOLLAR is a medium

programming language in IT and WRIT sector which

is mainly focused on security, datastructures,

,OOPS, Advanced OOPS in software development field only.

FAQS

A) A C Programmer or any oops developer can easily

study it....

Note:

CDollarv.2 ,CDollarv.1 ,CDollarv.3 is not a Version. Cdollarv.3 is a improved compiler.

CDollarv.3 ,CDC is a compiler and CDollarv.4 is a Translator and translate to

.wl files and

CDRUN is responsible for running the CDollar Program.

CDOLLAR MAIN Program Syntax AND ADVANCED CONCEPTS PROGRAM.

(.cdollar-CWE)

Syntax:

<CDollar>

<PACK> <nAMESPACE>

<%

<CLASS> <CLASSNAME>

{

```
public FLOAT CDollar-MAIN()

{


<! CDOLLAR LOGIC!>




%>


?>
```

BAG

=====

Bag is the extension of LinkedHashmap and it is the fastest

datastructures than Dictionary.

SYNTAX:

=======

```
Bag object = new Bag();
```

object .put(key,value);

Functions

getValues(key) => it is used to get the values for a particular key

get(key,loc) => it is used to get the value stored at a loc (indexing

purpose)

boolean containsValue(object Value) => To check the value present in bag or

not.

put(key,value) => it is used to add key and value in Bag

remove(key ,value) => It is used to remove key and value.

TreeList

========

TreeList simillar to Bucket but store items in tree format.

TreeList list = new TreeList ("BUCKETS");

list.KeyAdd(KEY);

list.add(VALUE1);

list.RandomAdd(RANDOMNO);

list.DisplayO(list,0);

MASK

====

It is the extension of Tree Structure and it can store many values

using mask object and we can also retrieve the values stored in mask.

Mask m = new Mask(<DATATYPE>);

m.add(multiple values);

m.getR(Loc); => Get the values stored in right position

m.getL(LOC) => Get the values stored in left position

HEAP:

====

Creates a tree , puts the data into tree in a fairly balanced way and displays

the tree's size and data in a tree by performing an inorder traversal.

Heap hob = new Heap(<datatype>);

hob.add(datum);

hob = new Heap(key,value1,value2);

Bucktist

==========

Bucktist is simillar to Bucket but it is used to addd two values with one

key.

Bucktist l = null;

l= new Bucktist(key,value1,value2);

WICKET

=======

Wicket is used to store multiple values using same object with

4 values per key.

Syntax:

Wicket list12;

list12=new Wicket(key,v1,v2,v3,v4);

list12.Display();

list12.Display(list12,location);

EXAMPLE -1: BAG

<CDollar>

```
<PACK> MyP
<%
   <CLASS> Programs
   {
      public FLOAT CDollar-MAIN()
      {

      Bag  b <NEW> Bag();

b.PUT(1,34);
b.PUT(2,444);

<PRINTLN>(""+b);




%>

?>
```

EXAMPLE:2 : CDOLARARRAYS

==========

```
<CDollar>

<USE> <CDOLLARS>.util;

<PACK> MyP
{
   <CLASS> Programs
   {

      public FLOAT CDollar-MAIN()
      {



<AList>  ar <NEW> <AList> ();
 for  (int  i=0;i<=100000;i++)
 ar.add(i);




 <CDOLLARARRAYS> list1 <NEW>  <CDOLLARARRAYS>("ANIMALS ");
      list1.add("1 horse");
 list1.add("2 pig");
 list1.add("3 cow");
```

```
list1.add("4 goat");

list1.add("5 chicken");


list1.add("6 ostrich");

list1.add(ar.StringConvert());

list1.Display();









   %>


?>
```

EXAMPLE-3: CREATE AN BOOTLOADER Using CDOLLAR

```
 <CDollar>


<PACK>  MYOS

{

   <CLASS> MYOs

   {

public FLOAT CDollar-MAIN(){
```

```
<PRINTLN>("HelloWorld for booting MYOS");



   %>

?>
```

EXAMPE-4: POINTERS

```
<CDollar>
<PACK> MyP
{
   <CLASS> Programs
   {
      public FLOAT CDollar-MAIN()
      {


 <Str>  s="dsdds";
```

```
{*} l Pointers (s);

l.add(s);

 for (int i = 0; i NOT= l.size(); i = i + 1)
 {

 <OBJECT> obj=l.GETKEY(i);
 <PRINTLN>(obj);




 }




    %>

?>
```

EXAMPLE-5: DICTIONARY

```
<CDollar>
<USE> System.Collections.Generic;

<PACK> MyP
{
   <CLASS> Programs
   {

      public FLOAT CDollar-MAIN()
      {


 Dictionary<string, string> openWith  <NEW>  Dictionary<string, string>();
openWith.Add("txt", "notepad.exe");
openWith.Add("bmp", "paint.exe");
openWith.Add("dib", "paint.exe");
openWith.Add("rtf", "wordpad.exe");



    %>

?>
```

Example-6: EXTEND

<CDollar>

<IMPORT>

<PACK> MyP

<%

<CLASS> Programs

<%

public FLOAT CDollar-MAIN()

{

```
EXTEND list <NEW> EXTEND("BUCKETS");



    list.KeyAdd("1101");

            list.add("jemin");

            list.RandomAdd();

            list.Display(list);

<PRINTLN>(""+list.DisplayO(list,1));


%>


?>
```

EXAMPLE-7: HEAP

<CDollar>

<PACK> MyP

{

<CLASS> Programs

{

public FLOAT CDollar-MAIN()

{

Heap root <NEW> Heap("wilmix");

for (int i = 0; i <= 10; i = i + 1)

{

root.add("item " + i);

}

<PRINTLN>(root.size());

root.printTree();

```
    %>

?>
```

Example-8: LArray

```
<CDollar>
<USE> <CDOLLARS>.util;

<PACK> MyP
{
   <CLASS> Programs
   {
        public FLOAT CDollar-MAIN()
       {

 LArray root <NEW> LArray("root");

 <AList>  ar <NEW>  <AList>();
```

```
for  (int  i=0;i<=1000;i++)

ar.add(i);

root.add("wilmix");
root.add("jemin");
root.add("shalom");
root.add("1010");
root.add("101");
root.add("201");
root.add(ar.StringConvert());
root.add("100000000");
//print the tree's size and contents

root.printTree();

   %>

?>
```

Example-9 : PIPE

```
<CDollar>

<PACK> MyP

{
   <CLASS> Programs
   {
public FLOAT CDollar-MAIN()
      {


Pipe list  <NEW> Pipe("BUCKETS");
```

```
    list.KeyAdd("1101");

            list.add("jemin");

            list.RandomAdd();

            list.Display(list);

<PRINTLN>(""+list.DisplayO(list,1));

   %>

?>
```

EXAMPLE-10: TREELIST

```
<CDollar>

<PACK> MyP

{
   <CLASS> Programs
   {
      public FLOAT CDollar-MAIN()
      {



TreeList list  <NEW> TreeList ("BUCKETS");









    list.KeyAdd("1101");

                list.add("jemin");
```

```
                list.RandomAdd("1111");

TreeList list2 <NEW> TreeList("BUCKETS");
 list2.KeyAdd("1102");

                list2.add("rahul");


                list2.RandomAdd("1112");




<PRINTLN>("DATA="+list.DisplayO(list,0));


<PRINTLN>("DATA="+list2.DisplayO(list2,0));


    %>

?>
```

Example-11 : MASK

```
<CDollar>
<USE>  <CDOLLARS>.util;


<PACK> My
{
   <CLASS> Programs
   {
        public FLOAT CDollar-MAIN()
      {


 MASK root <NEW> MASK("wilmix");
```

```
for (int i = 0; i NOT= 10; i = i + 1)
{
root.add("item " + i);
}
```

```
root <NEW> MASK("root1",1211211,54441);

root  <NEW> MASK("root2",121121,5444);
root  <NEW> MASK("root5",99121888,"5");

root  <NEW> MASK("root3",12112,544);

root  <NEW> MASK("root4",1211,54);

root  <NEW> MASK("root51",121,5);

root.printTree();
```

```
    %>

?>
```

Example-12 : WICKET

```
<CDollar>


<PACK> MyPo
{
   <CLASS> Programs
   {
        public FLOAT CDollar-MAIN()
      {
 Wicket  list12;
 list12 <NEW> Wicket(1000,10002,43433,4343,5555451);
```

```
list12 <NEW> Wicket(10001,100021,434331,4343,5555452);

list12 <NEW> Wicket(10002,100022,434332,4343,5555453);

list12 <NEW> Wicket(10003,100023,434333,4343,5555454);

list12 <NEW> Wicket(10004,100024,434334,4343,5555455);

list12 <NEW> Wicket(10005,100025,434335,4343,5555456);



list12.Display(list12);


<PRINTLN>("DATA="+list12.DisplayO(list12,0));




   %>


?>
```

Example-13 : STRUCTURE

```
<CDollar>

<PACK> MyPoi

{

   <CLASS> Programs
```

```
  {
      public FLOAT CDollar-MAIN()

     {


<Str>  s="dsdds";

{*} l Pointers(s);

l.add(s);

 for (int i = 0; i NOT= l.size(); i = i + 1)
 {

 <OBJECT> obj=l.GETKEY(i);
 <PRINTLN>(obj);




 }
```

```
<STRUCTURE>  list <NEW> <STRUCTURE> (l.GETKEY(0));


for (int i11 = 0; i11 NOT= list.size(); i11 = i11 + 1)

{




<OBJECT>  el=list.ret(i11);




<PRINTLN>("SNO= "+el);

            }



   %>

?>
```

Example-14 : BUCKETIST

```
<CDollar>



<PACK> MyP
{
   <CLASS> Programs
   {
        public FLOAT CDollar-MAIN()
       {




Bucketist bp   <NEW> Bucketist("wilmix");

bp   <NEW> Bucketist(1,222,434);
bp  <NEW> Bucketist(1,222,434);


bp.Display(bp);
```

```
<PRINTLN>("DATA="+bp.DisplayO(bp,1));



   %>


?>
```

==========

UNIT-6 :CDOLLAR GRAPHICS and NETWORKING

==========

CDOLLAR GRAPHICS always focus on GWT Graphics and GUI. GWT

is a heavy weighted toolkit.

CDollar Graphics can be done by extending Graphics class.

This will create a frame for that.

GWT graphics can be drawn using <PAINT> method.

Program-1

```
<CDollar>

<USE> <CJAVA>.awt.*;
```

```
<%
  class  abcde <--- Graphics


{
 public void  CDOLLAR-Main( )
{
abr  a  = <NEW> abr();









 a.<SIZE>(500,700);


    a.<FLOWLAYOUT>
 a.<VISIBLE=TRUE>



}



Shared  class abr  <--- abcde
{
<PAINT>
```

```
{
//Color  c  =  <NEW> Color();


for(int  i=0; i<=600;i++)
{


<DRAWTEXT>("CHOOSEN  CHOICE  is",400,500);
<SETCOLOUR>(COLOR=red);
<OVAL>(10+i,10+i,50+i,50+i);
<FILLOVAL>(70+i,90+i,140+i,100+i);
<SETCOLOUR>(COLOR=blue);
<OVAL>(190+i,10+i,90+i,30+i);
<RECT>(100+i,10+i,60+i,50+i);
<SETCOLOUR>(COLOR=cyan);
<FILLRECT>(100+i,10+i,60+i,50+i);
<ROUNDRECT>(190+i,10+i,60+i,50+i,15+i,15+i);
<SETCOLOUR>(COLOR=green);
<ARC>(10+i,20+i,150+i,190+i,160+i,60+i);
<FILLARC>(230+i,15+i,150+i,200+i,150+i,75+i);


if ( i== 300)  i=i-1;
}



}
```

```
}
}
%>


?>
```

Program-2:

Draw a house using CDollar

HOUSE.cdollar

```
<CDollar>


<USE> <CJAVA>.awt.*;



<%
  class  HOUSE  <--- <GRAPHICS>
```

```
{


public void  CDOLLAR-Main( )

{


houseparts a  = <NEW> houseparts();


 a.<SIZE>(500,700);


    a.<FLOWLAYOUT>

 a.<VISIBLE=TRUE>


}




Shared class houseparts  <--- HOUSE

{

 <PAINT>

   {

      background(g);

      house (g);

      roof1 (g);

      roof2 (g);

      windows (g);
```

```
    framing (g);
    extras (g);
    text (g);
}

public void background(<DRAW> g)
{


    <SETCOLOUR>(COLOR=black);



    <FILLOVAL> (15,35,170,55);
    <FILLOVAL> (20,20,160,50);
    <FILLOVAL> (350,50,170,55);
    <FILLOVAL> (355,35,160,50);



    <SETCOLOUR>(COLOR=cyan);
    <FILLOVAL> (650,035,120,120);
    <SETCOLOUR>(COLOR=green);
   <ARC>(10,20,180,190,160,60);
```

```
<FILLARC>(230,15,150,200,150,75);
 }

 public void house (<DRAW> g)
 {
    <SETCOLOUR>(COLOR=yellow);
    <FILLRECT> (100,250,400,200);
    <FILLRECT> (499,320,200,130);
    <SETCOLOUR>(COLOR=green);
    <FILLRECT> (160,150,60,90);
    <FILLRECT> (245,380,110,70);
    <FILLRECT> (508,350,180,100);
    <SETCOLOUR>(COLOR=yellow);
   <FILLOVAL> (282,412,10,10);
    <FILLOVAL> (307,412,10,10);

 }

 public void roof1 (<DRAW> g)
 {
    <SETCOLOUR>(COLOR=pink);
    int x[] = {98,300,501};
    int y[] = {250,130,250};
    <FILLPOLYGON>(x,y,3);
 }
```

```
public void roof2 (<DRAW> g)
{
   <SETCOLOUR>(COLOR=orange);
   int x[] = {499,499,700};
   int y[] = {320,249,320};
   <FILLPOLYGON>(x,y,3);
}


public void windows (<DRAW> g)
{
   <SETCOLOUR>(COLOR=white);
  <FILLOVAL>(521,350,68,31);
   <FILLOVAL> (606,350,68,31);
   <FILLRECT> (121,261,78,78);
   <FILLRECT> (121,361,78,78);
   <FILLRECT> (401,261,78,78);
   <FILLRECT> (401,361,78,78);
   <FILLRECT> (241,261,118,78);
  <SETCOLOUR>(COLOR=white);
   <FILLRECT> (125,265,70,70);
   <FILLRECT> (125,365,70,70);
   <FILLRECT>(405,265,70,70);
   <FILLRECT> (405,365,70,70);
```

```
    <FILLRECT> (245,265,110,70);
    <FILLOVAL> (525,353,60,25);
    <FILLOVAL> (610,353,60,25);
}

public void framing (<DRAW> g)
{
     <SETCOLOUR>(COLOR=black);

    <FILLRECT> (298,380,2,70);
    <FILLRECT> (508,382,180,2);
    <FILLRECT> (508,417,180,2);
    <SETCOLOUR>(COLOR=white);
    <FILLRECT> (157,265,5,70);
    <FILLRECT> (157,365,5,70);
    <FILLRECT> (437,265,5,70);
    <FILLRECT> (438,365,5,70);
    <FILLRECT> (297,265,5,70);
    <FILLRECT> (125,298,70,5);
    <FILLRECT> (125,398,70,5);
    <FILLRECT> (405,298,70,5);
    <FILLRECT> (405,398,70,5);
    <FILLRECT> (245,298,110,5);
    <FILLRECT> (245,375,110,5);
    <FILLRECT> (240,375,5,75);
```

```
    <FILLRECT> (352,375,5,75);
    <FILLRECT> (508,345,180,5);
    <FILLRECT> (503,345,5,105);
    <FILLRECT> (688,345,5,105);
  }

  public void extras (<DRAW> g)
  {
    <SETCOLOUR>(COLOR=orange);
    <FILLOVAL> (160,105,35,45);
    <FILLOVAL> (170,95,35,45);
    <FILLOVAL> (160,85,35,45);
    <FILLOVAL> (170,35,35,45);
    <FILLOVAL> (160,25,35,45);
    <FILLOVAL> (170,15,35,45);
    <SETCOLOUR>(COLOR=orange);
    <FILLRECT> (508,450,180,150);
    <FILLRECT> (245,450,107,50);
    <FILLRECT> (274,500,50,40);
    <FILLRECT> (274,520,250,45);
    }

  public void text (<DRAW> g)
  {
    <SETCOLOUR>(COLOR=orange);
```

```
        <DRAWTEXT>("House portrait by: wilmix jemin",390,70);
  }

  }

}

%>

?>
```

PROGRAM-3

---

if you select radio or listbox or combobox it should display items

in text box.

//Graphics using GWT and GWT components are heavy weighted

```
<CDollar>
<USE> <CJAVA>.awt.*;
```

```
<%


class GUI1  <--- <GRAPHICS>  --> <HEAR>


{

Shared <RADIO> r <GWT=6>();

Shared <TEXTFIELD> l3 <GWT=3> ();

Shared <CHECKBOX> l5 <GWT=5> ("YES",false,r);

 Shared  <CHECKBOX> l51 <GWT=5> ("NO",false,r);


Shared  <LISTBOX> lb <GWT=7>();

 Shared  <COMBOBOX> cb <GWT=8>();


 Shared  <Str>  s= "";

<ITEMSTATECHANGED>

{


if  (ie.<ITEMSELECTABLE> == l5)


l3.<VALUE>("YES");
```

```
if (ie.<ITEMSELECTABLE> == l51)

l3.<VALUE>("NO");



if (ie.<ITEMSELECTABLE> == cb)
l3.<VALUE>(((<COMBOBOX>) ie.<ITEMSELECTABLE>).<SELECTITEM>);



if (ie.<ITEMSELECTABLE> == lb)

l3.<VALUE>(((<LISTBOX>) ie.<ITEMSELECTABLE>).<SELECTITEM>);

s=l3.<ASSIGN>();

}

  public void CDOLLAR-Main( ) {

 abrpaint g =<NEW> abrpaint();

 <IMAGE>
   //GUI1 g = <NEW> GUI1();
  <LABEL> l1 <GWT=1> ("CDollar GUI Programming");
```

```
<BUTTON> l2 <GWT=2> ("CDollar  GUI  Programming");

//<TEXTFIELD> l3 <GWT=3> ();

<TEXTAREA> l4 <GWT=4> (12,40);

//<CHECKBOX> l5 <GWT=5> ("Yes");


l5.<SOUND>(g);

//<CHECKBOX> l51 <GWT=5> ("NO");



l51.<SOUND>(g);


      l3.<VALUE>("<THIS> is a textbox");

      l4.<APPEND>("Number of columns in this textarea: " +   l4.<COLS>);


      //the add() method of the Frame class is

      //used to add components to the frame

      g.add(l1);

     g.add(l2);

     g.add(l3);

      g.add(l4);

  g.add(l5);

   g.add(l51);


lb.add("CDOLLAR");

lb.add("JAVA");
```

```
lb.add("JDOLLAR");

lb.add("C");

lb.add("MAC");

 g.add(lb);lb.<SOUND>(g);


cb.add("CDOLLAR");

cb.add("JAVA");

cb.add("JDOLLAR");

cb.add("C");

cb.add("MAC");


   g.add(cb);cb.<SOUND>(g);




    g.<SIZE>(500,700);

    g.<FLOWLAYOUT>

     g.<VISIBLE=TRUE>



 }


 Shared  class abrpaint  <--- GUI1

{
```

```
<PAINT>

{

<DRAWTEXT>("CHOOSEN CHOICE is"+s,400,500);

<RECT>(20,10,100,60);

}

}

}

%>

?>
```

N/w are essential to our life. Intenet is born due to networking and

A method of Client -server communications

gives like a house - to house interaction.

CLIENT SERVER PROGRAM

<CDollar>

<PACK> MYOS

{

<CLASS> MYOs

{

public FLOAT CDollar-MAIN(){

<CLIENT>("localhost","1099");

<SERVER>("1099");

%>

?>

==========

UNIT:7 : CDollar Security,CDOLLAR with WNOSQL DB

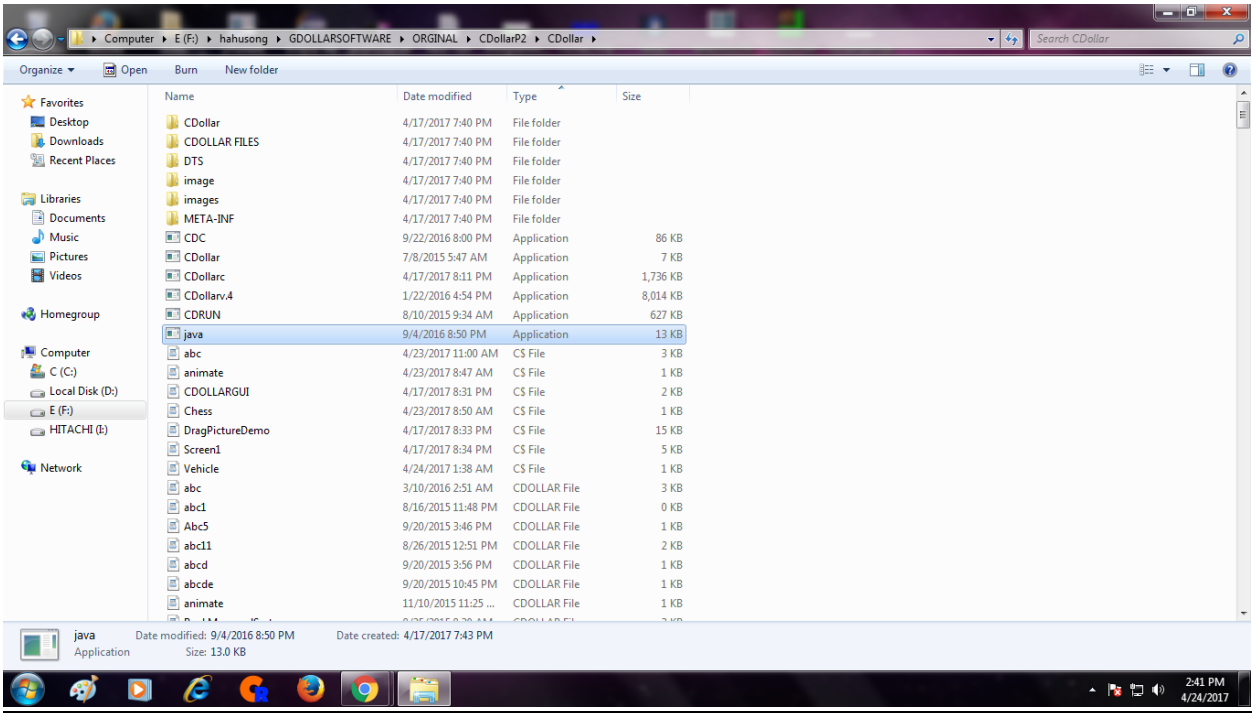
==========

CDOLLAR with WNOSQL

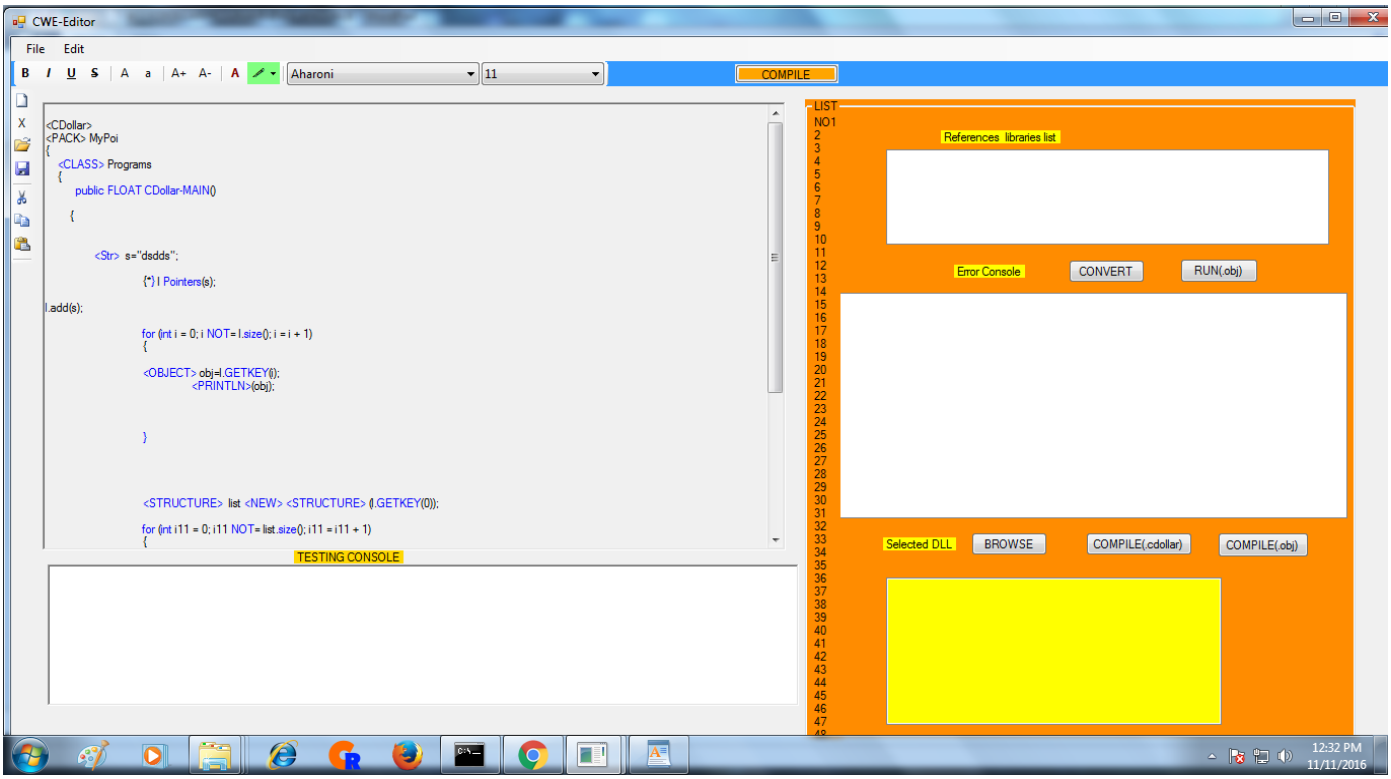
```
<CDollar>
<USE> CDollar.WDBA; //use   cdolla.wdba packages
<USE> <CDOLLARS>.util; /use cdollar.util packages
<USE> <CDOLLARS>.lang;
<USE> WDBA;
<PACK> WDBAexample
{
   public <CLASS> example1
   {

      Shared void Main()

      {
```

```
string g = WDBASQL.WDBASQLS("datastores", "USEDATABASE", "dbpwds",
"C:\\Programs\\CDOLLAR\\WNOSQLProgramfiles\\WNO");
// declare   directory  of  .wdba files



        string t = WDBASQL.WDBASQLS("dbuser", "dbpwds", 1, "wilmix78", "wilmix78", 1, 5, g);

 // supply username  and  password

        string s1 = "SelectAll from columns 0 to 20 , 1 to 1 ?= XXX By X f(x) : {0,1,2}: {3,4,5} :{2,4}";
//selectall  columns  from 0 to  20 for  row  and  cols   1,1  respectively.

        string s11 = "RIGHTJOIN from student 0 to 1 , 1 to 4 ?= emp For X f(x) : {0,1,2,3,4,5,6,7,8,9,10,11} :
{0,1,2,3,4,5,6,7,8,9,10,11} : {0}";
//perform   right  join  between  query  student  and  emp.

        <PRINTLN>(""+SQL.WDBAQUERY(  s1,  t));
//print  selectall from  columns table
        <PRINTLN>("" + SQL.WDBAQUERY(s11, t));
//print  right join  query.
      }
   }
}
```

a)SCREENSHOTS OF CDOLLAR Project Structure



b) CDOLLAR _CWE EDITOR



==========

CJAVA

<CJAVA>

<USE> package;
<PACK> package
{

<CLASS> classname
{

public void main()
{

<! code logic !>

```
    }
  }
}
```

Example-1
========

At first add TreeExample.dll to properties file

and compile the program using CDollarcc Tree.cjava

```
<CJAVA>

<USE> Tree;
<PACK> Tree
{

   <CLASS> Tree
  {


     public void main()
     {

TreeExample.call();// call the api of CDollar.


     }
  }
}
```

CDOLLAR with JSTAR

For CDollar with JSTAR carry .exe and .dll and

put it in JSTAR server for futhure use.

UNIT 4	OAKJAVA7 Advanced OOPS	

OAKJAVA7 Advanced OOPS

JAVA7.0 Advanced Oops add features like
Operator overloading , friend function,CDollar oops,Gdollar oops,Jstar oops, Chdollar oops , JDk-java oops, and ,Java7.0 oops.

We already know about the concepts like CDollar oops,Gdollar oops,Jstar oops,Chdollar oops. But java developers did not know about Java7.0 Advanced concepts.

JAVAFILEAPIS
==========

JFile. display(String f1) => Display the file attributes

JFileInputStream.ReadBytes(String f1,int p) => This is used to readbytes form the file

JFileOutputStream.Write(String data,String f1 ,String f2, String f3,int r1,int r2) => This is used to write a databytes to a file

JFileReader.Read(String f1,int d) => This is used to read from file

JFileWriter.Write(String f1, char data[], String f2, String f3,String app,int r1,int r2) => This is used to write a data to a file

JInputStreamReader.ReadLN() => it is used to read a character for a file

JPrinter.call() => Printer enabled

JPrintWriter.display(String s1) => Write a String

JSerialization.Serialize(String a,String s1,String s2) => Serialize and deserilaize a string

JStreamTokenizer.Split(String f1) => Split the String to tokens.

Program1.web

```
<WEB>
<USE> CDollar.IO;
<USE> CUTIL;

<PACK> BoxApplication
{
  <CLASS> Box
  {
    private double length;   // Length of a box
    private double breadth;  // Breadth of a box
    private double height;   // Height of a box
    public void setLength( double len )
    <%
      length = len;
    }

    public void setBreadth( double bre )
   <%
      breadth = bre;
    }

    public void setHeight( double hei )
  <%
      height = hei;
    }
```

```
  public double getVolume()
 <%
    return length * breadth * height;
  }
}
 <CLASS> Boxtester
{
  public void main()
  {
    Box Box1 <NEW> Box();   // Declare Box1 of type Box
    Box Box2 <NEW> Box();

    double volume;

    // Declare Box2 of type Box
    // box 1 specification
    Box1.setLength(6.0);
    Box1.setBreadth(7.0);
    Box1.setHeight(5.0);

    // box 2 specification
    Box2.setLength(12.0);
    Box2.setBreadth(13.0);
    Box2.setHeight(10.0);

    // volume of box 1
    volume = Box1.getVolume();
 <PRINTLN>("Volume of Box1 :" +volume);

    // volume of box 2
    volume = Box2.getVolume();
    // <PRINTLN>("Volume of Box2 : {0}", volume);

   // Console.ReadKey();

    CUTIL.ArrayList x <NEW> CUTIL.ArrayList();
```

```
    // test size
      <PRINTLN>("Initial size is " + x.size());

    // test isEmpty
      if (x.isEmpty())
        <PRINTLN>("The list is empty");
      else <PRINTLN>("The list is not empty");

    // put   datafrom file Java7Model.model

      x.add(0, Java7Collection.QUERY());
      x.add(1, (6));
      x.add(0, (1));
      x.add(2, (4));
      <PRINTLN>("List size is " + x.size());

    // test toString
      <PRINTLN>("The list is " + x);

//insert  value  into  Java7Model.model
Java7Collection.InsertQUERY(x.ToString());

    // test indexOf
      int index = x.indexOf((4));
      if (index < 0)
        <PRINTLN>("4 not found");
      else <PRINTLN>("The index of 4 is " + index);

      index = x.indexOf((3));
      if (index < 0)
        <PRINTLN>("3 not found");
      else <PRINTLN>("The index of 3 is " + index);

    // test get
      <PRINTLN>("Element at 0 is " + x.get(0));
      <PRINTLN>("Element at 3 is " + x.get(3));
```

```
    // test remove
      <PRINTLN>(x.remove(1) + " removed");
      <PRINTLN>("The list is " + x);
      <PRINTLN>(x.remove(2) + " removed");
      <PRINTLN>("The list is " + x);

      if (x.isEmpty())
        <PRINTLN>("The list is empty");
      else <PRINTLN>("The list is not empty");

      <PRINTLN>("List size is " + x.size());


    }
  }
}
```

UNIT-5:OAKJAVA7-PROGRAMS

TreeExample: JAVASwing Program

```
import java.awt.BorderLayout;
import javax.swing.ImageIcon;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JScrollPane;
import javax.swing.JTree;
import javax.swing.SwingUtilities;
import javax.swing.event.TreeSelectionEvent;
import javax.swing.event.TreeSelectionListener;
import javax.swing.tree.DefaultMutableTreeNode;
import javax.swing.tree.DefaultTreeCellRenderer;



public class TreeExample extends JFrame
{
   private JTree tree;
   private JLabel selectedLabel;

   public TreeExample()
   {
      //create the root node
      DefaultMutableTreeNode root = new DefaultMutableTreeNode("Root");
      //create the child nodes
      DefaultMutableTreeNode vegetableNode = new DefaultMutableTreeNode("Vegetables");
      vegetableNode.add(new DefaultMutableTreeNode("Capsicum"));
      vegetableNode.add(new DefaultMutableTreeNode("Carrot"));
      vegetableNode.add(new DefaultMutableTreeNode("Tomato"));
      vegetableNode.add(new DefaultMutableTreeNode("Potato"));

      DefaultMutableTreeNode fruitNode = new DefaultMutableTreeNode("Fruits");
      fruitNode.add(new DefaultMutableTreeNode("Banana"));
      fruitNode.add(new DefaultMutableTreeNode("Mango"));
      fruitNode.add(new DefaultMutableTreeNode("Apple"));
      fruitNode.add(new DefaultMutableTreeNode("Grapes"));
      fruitNode.add(new DefaultMutableTreeNode("Orange"));

      //add the child nodes to the root node
      root.add(vegetableNode);
      root.add(fruitNode);

      //create the tree by passing in the root node
```

```
        tree = new JTree(root);

        ImageIcon imageIcon = new ImageIcon(TreeExample.class.getResource("leaf.jpg"));
        DefaultTreeCellRenderer renderer = new DefaultTreeCellRenderer();
        renderer.setLeafIcon(imageIcon);

        tree.setCellRenderer(renderer);
        tree.setShowsRootHandles(true);
        tree.setRootVisible(false);
        add(new JScrollPane(tree));

        selectedLabel = new JLabel();
        add(selectedLabel, BorderLayout.SOUTH);

        tree.getSelectionModel().addTreeSelectionListener(new TreeSelectionListener() {
            @Override
            public void valueChanged(TreeSelectionEvent e) {
                DefaultMutableTreeNode selectedNode = (DefaultMutableTreeNode)
tree.getLastSelectedPathComponent();
                selectedLabel.setText(selectedNode.getUserObject().toString());
            }
        });

        this.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        this.setTitle("JTree Example");
        this.setSize(200, 200);
        this.setVisible(true);
    }




     static void main(String args[])
    {
        SwingUtilities.invokeLater(new Runnable() {
            @Override
            public void run() {
                new TreeExample();
            }
        });
    }
}
```

Now compile the java program

Using java7c <filename.java>

After to convert .dll using

Ikvmc <filename.class> ….

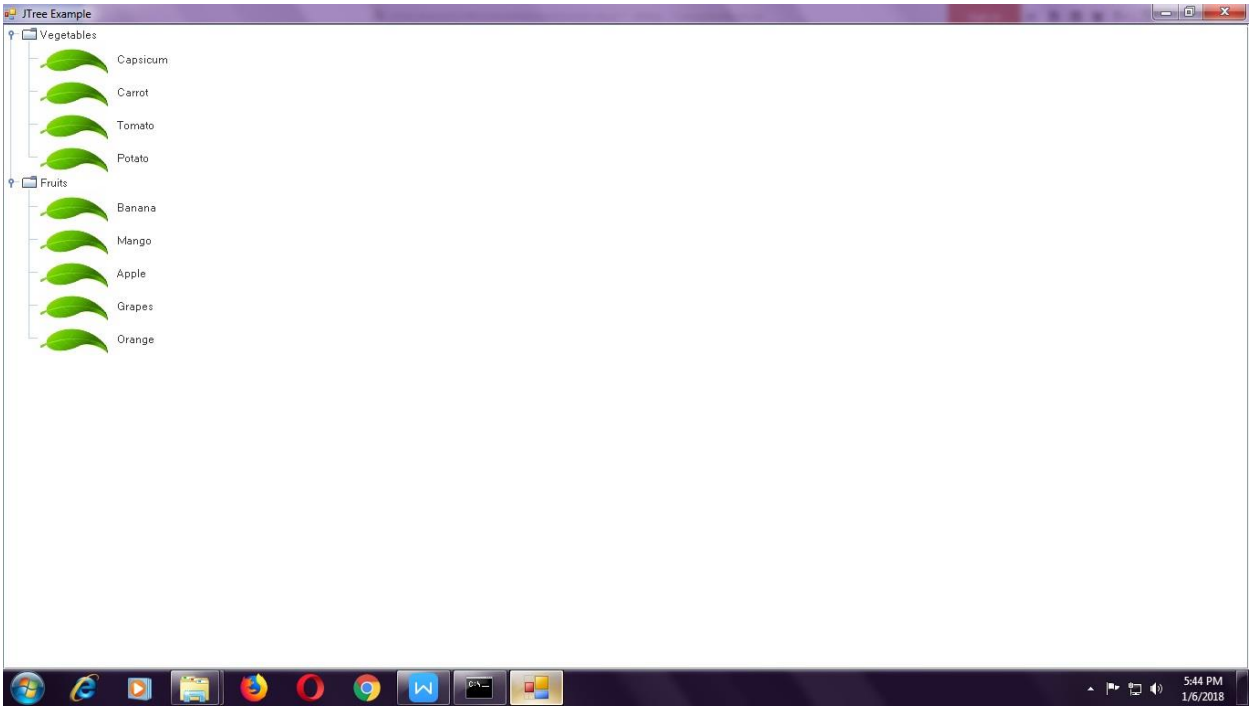
So this statement will convert to .dll format

to be used with OAKJAVA7

Enter TreeExample.dll in properties file

So that you can call the api TreeExample.call();
In oakjava7.web which will creates .exe file

Now run the above TreeExample Program to get the following Output…



==========

Program -2:oakjava1.java

```
class oakjava1

{

 void  display()

{

System.out.println("wilmix is going");
}

}
```

```
class oakjava2

{

protected static void  main(String args[])
//  it  means it cannot  be  run   in   jdk1.8 compiler

{

oakjava1 o  = new  oakjava1();
System.out.println("Wilmix is going");
}

}
```

Compile the program using
Java7c oakjava1.java

Run the program using
java oakjava1

Output:

Wilmix is going

UNIT 6	*OAKJAVA7 with OAKJAVA7(.web)*

1) Write a java7.0 program and convert to .dll and create .exe using java7.0 program.

Program -1 : TICTACTOE GAME

GameApplet.java

```
import java.applet.Applet;
import java.awt.BasicStroke;
import java.awt.Color;
import java.awt.Container;
import java.awt.Graphics;
import java.awt.Graphics2D;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.awt.event.KeyEvent;
import java.awt.event.MouseEvent;
import java.awt.event.MouseListener;
import java.awt.event.WindowEvent;
import java.awt.event.WindowListener;
import java.io.PrintStream;
import javax.swing.JButton;
import javax.swing.JDialog;
import javax.swing.JFrame;
import javax.swing.JOptionPane;
```

```
public class GameApplet extends JFrame
implements MouseListener, ActionListener, WindowListener
{
   JFrame f;
   int flag = 2;
   int n;
   int m;
   int i = 0;
   static int bug = 0;
   char[] ch = new char[9];
   JButton first;
   JButton second;
   String s1 = "";

   public GameApplet()
   {
      this.f = new JFrame("Tic Tac Toe");
      this.first = new JButton("CLEAR");
      this.second = new JButton("EXIT");
      this.f.add(this.first);
      this.f.add(this.second);
      this.f.addWindowListener(this);
      this.f.getContentPane().setBackground(Color.BLUE);
      this.f.setLayout(null);
      this.f.setVisible(true);
      this.f.setSize(800, 600);
      this.first.setBounds(650, 50, 90, 60);
      this.second.setBounds(650, 250, 90, 60);

      this.f.addMouseListener(this);
      for (this.i = 0; this.i < 9; this.i += 1)
      this.ch[this.i] = 'B';
      this.first.addActionListener(this);
```

```
        this.second.addActionListener(this);

        String message = "Please click on the frame   !!!!! \n    \nto start the
game \n";

        JOptionPane pane = new JOptionPane(message);
        JDialog dialog = pane.createDialog(new JFrame(), "Dilaog");
        dialog.show();
        Graphics g = this.f.getGraphics();
        g.drawLine(200, 0, 200, 600);
        g.drawLine(400, 0, 400, 600);
        g.drawLine(0, 200, 600, 200);
        g.drawLine(0, 400, 600, 400);
        g.drawLine(600, 0, 600, 600);
    }

    public void keyPressed(KeyEvent k)
    {
        System.out.print("");
    }

    public void keyTyped(KeyEvent k) {
        this.s1 += k.getKeyChar();
    }

    public void keyReleased(KeyEvent k) {
        System.out.print("");
    }

    public void actionPerformed(ActionEvent ae)
    {
        if (ae.getSource() == this.first)
        {
```

```
        this.f.setVisible(false);
        bug = 0;
        new GameApplet();
    }
    if (ae.getSource() == this.second)
    {
        System.exit(0);
    }
}

public void windowClosing(WindowEvent de)
{
System.exit(0); }

public void windowOpened(WindowEvent de) { }

public void windowClosed(WindowEvent de) { }

public void windowActivated(WindowEvent de) { }

public void windowDeactivated(WindowEvent de) { }

public void windowIconified(WindowEvent de) { }

public void windowDeiconified(WindowEvent de) {  }

public void mouseClicked(MouseEvent e) { Graphics2D g2;
    Graphics g = this.f.getGraphics();
    g.drawLine(200, 0, 200, 600);
    g.drawLine(400, 0, 400, 600);
    g.drawLine(0, 200, 600, 200);
    g.drawLine(0, 400, 600, 400);
    g.drawLine(600, 0, 600, 600);
```

```
        this.flag -= 1;
        int x = e.getX();
        int y = e.getY();
        if (this.flag == 1)
        {
            if ((x < 200) && (y < 200)) { this.m = 0; this.n = 0; this.ch[0] = 'R'; }
            if ((x > 200) && (x < 400) && (y < 200)) { this.m = 200; this.n = 0;
this.ch[1] = 'R'; }
            if ((x > 400) && (x < 600) && (y < 200)) { this.m = 400; this.n = 0;
this.ch[2] = 'R'; }
            if ((x < 200) && (y > 200) && (y < 400)) { this.m = 0; this.n = 200;
this.ch[3] = 'R'; }
            if ((x > 200) && (x < 400) && (y > 200) && (y < 400)) { this.m =
200; this.n = 200; this.ch[4] = 'R'; }
            if ((x > 400) && (x < 600) && (y > 200) && (y < 400)) { this.m =
400; this.n = 200; this.ch[5] = 'R'; }
            if ((x < 200) && (y > 400) && (y < 600)) { this.m = 0; this.n = 400;
this.ch[6] = 'R'; }
            if ((x > 200) && (x < 400) && (y > 400) && (y < 600)) { this.m =
200; this.n = 400; this.ch[7] = 'R'; }
            if ((x > 400) && (x < 600) && (y > 400) && (y < 600)) { this.m =
400; this.n = 400; this.ch[8] = 'R'; }
            g.setColor(new Color(77, 176, 230));
            g2 = (Graphics2D)g;
            g2.setStroke(new BasicStroke(10.0F));
            g.drawOval(this.m + 10, this.n + 10, 159, 159);
        }

        if (this.flag == 0)
        {
            if ((x < 200) && (y < 200)) { this.m = 0; this.n = 20; this.ch[0] = 'P';
}
```

```
        if ((x > 200) && (x < 400) && (y < 200)) { this.m = 200; this.n = 20;
this.ch[1] = 'P'; }
        if ((x > 400) && (x < 600) && (y < 200)) { this.m = 400; this.n = 20;
this.ch[2] = 'P'; }
        if ((x < 200) && (y > 200) && (y < 400)) { this.m = 0; this.n = 200;
this.ch[3] = 'P'; }
        if ((x > 200) && (x < 400) && (y > 200) && (y < 400)) { this.m =
200; this.n = 200; this.ch[4] = 'P'; }
        if ((x > 400) && (x < 600) && (y > 200) && (y < 400)) { this.m =
400; this.n = 200; this.ch[5] = 'P'; }
        if ((x < 200) && (y > 400) && (y < 600)) { this.m = 0; this.n = 400;
this.ch[6] = 'P'; }
        if ((x > 200) && (x < 400) && (y > 400) && (y < 600)) { this.m =
200; this.n = 400; this.ch[7] = 'P'; }
        if ((x > 400) && (x < 600) && (y > 400) && (y < 600)) { this.m =
400; this.n = 400; this.ch[8] = 'P'; }
        g2 = (Graphics2D)g;
        g2.setStroke(new BasicStroke(10.0F));
        g.setColor(new Color(77, 176, 230));
        g.drawLine(this.m + 10, this.n + 13, this.m + 169, this.n + 164);
        g.drawLine(this.m + 169, this.n + 10, this.m + 10, this.n + 169);
        this.flag += 2;
      }

      for (this.i = 0; this.i < 3; this.i += 1)
      {
        if ((this.ch[this.i] != 'B') &&
        (this.ch[(this.i + 3)] == this.ch[this.i]) && (this.ch[(this.i + 6)] ==
this.ch[this.i]))
        {
          new j.Board().win();
          bug = 1;
        }
```

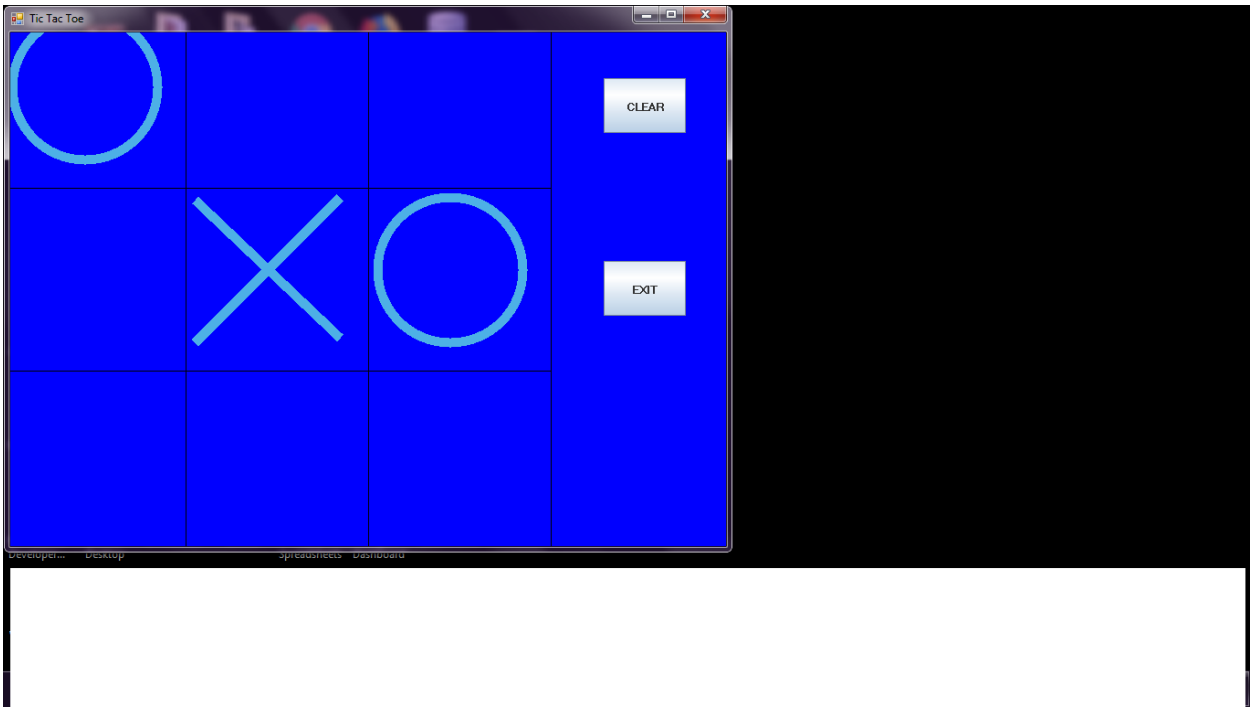
```
      }

      for (this.i = 0; this.i < 7; this.i += 1)
      {
         if (this.ch[this.i] != 'B')
         {
            if ((this.ch[this.i] == this.ch[(this.i + 1)]) && (this.ch[this.i] ==
this.ch[(this.i + 2)]))
            {
               new j.Board().win();
               bug = 1;
            }
            this.i += 2;
         }
         else {
            this.i += 2;
         }
      }
      if ((this.ch[4] != 'B') && ((
      ((this.ch[0] == this.ch[4]) && (this.ch[4] == this.ch[8])) ||
((this.ch[2] == this.ch[4]) && (this.ch[4] == this.ch[6]))))
      {
         new j.Board().win();
         bug = 1;
      }

      for (this.i = 0; (this.i < 9) &&
      (this.ch[this.i] != 'B'); this.i += 1)
      {
         if (this.i == 8)
         {
            if (bug == 0)
            new j.Board().draw();
```

```
            bug = 0;
         }
      }
   }

   public void mouseReleased(MouseEvent e)
   {
      System.out.print("");
   }

   public void mouseEntered(MouseEvent e)
   {
      System.out.print("");
   }

   public void mouseExited(MouseEvent e) {
      System.out.print("");
   }

   public void mousePressed(MouseEvent e) {
      System.out.print("");
   }

   public static void call()
   {
      new GameApplet();
   }
}
```

TicTacToGame.web

```
<WEB>
<USE> System;
<USE> System.Windows.Forms;
<PACK> Games
{

   <CLASS> Tictactoegame
  {
     public void main()
     {
GameApplet.call();

     }
  }
}
```

OUTPUT



2)

```
<WEB>
<USE> <CDOLLARS>.util;
<USE> Security;

<PACK> Program8
{

   <CLASS> Prog
  {


     public void main()
     {



String t="";

ArrayList arm1 = new  ArrayList();


arm1.add("uname");
arm1.add("psw");

arm1.add("!");

// add  fields  in html  form ie)  html form  contains  2 fields
// they are   uname ,psw.
```

```
ArrayList  armg= Request.Query(arm1,"Registeruser.j.dsn",3,1);
//load  the   response  data of  form   from  Registeruser.dsn
// using  Request.Query API will  return  an  arraylist  format

wdbaconn.JSTARWDBAQUERY("datastores", "USEDATABASE",
"dbpwds",
"C:\\Programs\\WNOSQL\\WNOSQLProgramfiles\\WNOSQL-cod");



 wdbaconn.JSTARWDBAUSERQUERY("dbuser", "dbpwds", "wilmix78",
"wilmix78");
// create table  RegisterJava7p3  with   2  fields name  and pwd
String q = "CREATETABLE from RegisterJava7p3 0 to 0 , 1 to 5 ?= 6639
By 6639 f(x) : {NAME,PWD} : {} :{2,4}";

  wdbaconn.WDBAQUERY(q);




t=armg.get(0).ToString()+","+armg.get(1).ToString();

// insert   the values  into  RegisterJava7  ie)  username  and  password

String  s12 ="INSERTINTO from RegisterJava7p3 2 to "+2+" , 1 to 5 ?= A
By 1 1 : {0} : {"+t+"} : {0}";
```

```
 wdbaconn.WDBAQUERY(s12);



// list the RegisterJava7p3 contents

String qh2="SELECTRVAL from RegisterJava7p3 2 to 6 , 1 to 5 ?= A By 1
1 : {0} : {0} :{0}";

 wdbaconn.WDBAQUERY(qh2);



<TRY>
{


String s=Secure.RetreiveSecure("output.wdba" ,0); //retrieve the
//query output from wdba file

s=s.Replace("[","").Replace("]","");




string []ename = s.Split(' ');

//split by spaces


int lengthA = ename.Length;
```

```
<PRINTLN>(" <html>");
<PRINTLN>(" <form>");
<PRINTLN>(" <Table  bgcolor=gold>");


for  (int  i=0;i<lengthA;i+=3)
{


//print   the  contents
                <PRINTLN> ("<tr>");
                  <PRINTLN> (" <td>"+ename[i]+"</td>");
                   <PRINTLN> ("<td>"+ename[i+1]+"</td>");
                   <PRINTLN>(" <td>"+ename[i+2]+"</td>");


          <PRINTLN>(" </tr>");
}

<PRINTLN>(" </table>");

<PRINTLN>(" </form>");
<PRINTLN>(" </html>");


}

<CATCH>(<EXE> e)

{

}
```

```
    }
  }
}
```

Developer Exercises

A) Write a java7.0 Program to count no

Of words ,line in a given text and store the details

In wnosql database.

B) Write a JAVA7.0 Program to read an employee,
Delete a employee details and update the employee details.
Use JAVA7.0 with hibernate.

C) Create a Shooting ballons game with
Toy name pravin . If Pravin shoots 25 balloons
With in 15 minutes then the Pravin is awarded
50 points score. If pravin toy did not shoot
Balloons then he is awarded 0 points.

D) Create a JAVASWING Calculator Using JAVA7.0

E) Insert ,list studentdetails using Oracle db using
Java7.0

UNIT-7: OAKJAVA7 with JDollar(JWEB) and CHDollar(CH$),

ONLINE BILLING,FORMS,REPORTS

==========

ABOUT CHDOLLAR PART2

==========

CHDollar Part2 is focused on Online Billing Software Consider a scenario in which billing software is created using java swing and we store the shopping bill data in oracle or mysql database.
Since Oracle sql is attacked by SQL injection so data security fails.We already know that WNOSQL database provides high data security and protect your data from hackers.

SYNTAX

```
<CDollar>
<IMPORT>
<%
public class <classname> {
  public void  CDOLLAR-Main( )
{
<!  CDollar  Logic  code  !>
}
}
%>
?>
```

Example-1: Write a Electricity bill program

```
using  CDollar-CHDollar-Part2.



<CDollar>
<IMPORT>
<%

public class electricitybill {

  public void  CDOLLAR-Main( )
{

HTML.displayhtml("BILL.html");

}
}

%>

?>
```

Write a OAKJAVA7 Model class Program for electricity bill

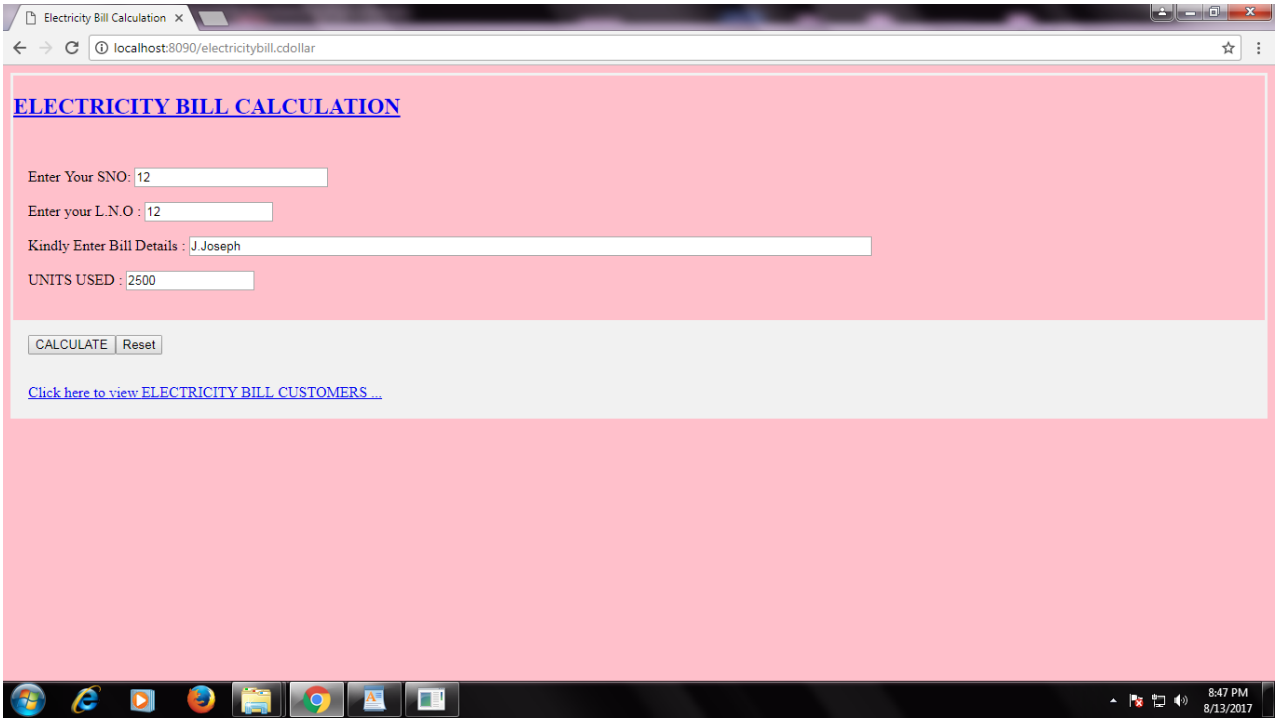
```
<WEB>
<USE> <CDOLLARS>.util;//load  util  packages
<USE> Security; //load  security  packages
<USE> CDollar.WDBA; //  load  Cdollar.wdba packages
<USE> WDBA; //load  wdba  packages
<PACK> Program8
{
    <CLASS> Prog
   {

      static double pressure = 5.5;
```

```
        public static void totalBill(double consumerUnit)
        {
            double Month =( pressure * consumerUnit) * 1;
<PRINTLN>("<td height=200 bgcolor=white>  <font size=4 color=blue>"+
Month+"/-</font></td>");

        }

      public void main()
      {
ArrayList arm1= new ArrayList();
arm1.add("Sno");
arm1.add("Lno");
arm1.add("Billdetails");
arm1.add("Units");
arm1.add("NOT");
<PRINTLN>("<HTML>");
<PRINTLN>("<head> <style>");
<PRINTLN>("table, th, td {");
   <PRINTLN>(" border: 1px solid black; ");
<PRINTLN>("}");
<PRINTLN>("</style>");
<PRINTLN>("</head>");
<PRINTLN>("<BODY bgcolor=pink>");
<PRINTLN>("<form>");
ArrayList  armg= Request.Query(arm1,"electricitybill.cl.dsn",4,1);
 string  s=armg.get(0).ToString();
 <PRINTLN>("<table style='width:100%;' cellpadding=10 cellspacing=5
bgcolor=gold >");
<PRINTLN>("<tr>");
<PRINTLN>("  <p align=center><font size=6 color=blue>TAMILNADU
ELECTRIC  SUPPLY UNIT</font></p> ");
<PRINTLN>("  <p align=center><font size=3 color=red>ELECTRIC  SUPPLY
RECEIPT</font></p> ");
<PRINTLN>(" <p align=left><font size=3 color=blue>Name:</font> </p><p
align=right><font size=3 color=blue>SNO:"+s+"</font></p>");
<PRINTLN>("<p align=left><font size=3 color=blue>Electricity
No:</font></p>");
```

```
<PRINTLN>("<p align=left><font size=3 color=blue>Receipt
NO:</font></p><p align=right><font size=3
color=blue>DAY:</font></p>");
<PRINTLN>("</tr>");
  <PRINTLN>("<tr>");
<PRINTLN>(" <th><font size=4 color=blue> LNO </font></th>");
<PRINTLN>(" <th><font size=4 color=blue> BILL DETAILS</font></th>");
<PRINTLN>(" <th><font size=4 color=blue> UNITS </font></th>");
<PRINTLN>("<th> <font size=4 color=blue> Amount(Rs)</font></th>");
<PRINTLN>(" </tr>");
<PRINTLN>(" <tr>");
<PRINTLN>(" </tr>");
<PRINTLN>(" <tr>");
<PRINTLN>(" <td height=200  bgcolor=white><font size=4 color=blue>
"+armg.get(1).ToString()+"</font></td>");
<PRINTLN>("<td height=200 bgcolor=white><font size=4
color=blue>"+armg.get(2).ToString().Replace("%40++","@").Replace("%2F"
,"/").Replace("+"," ")+"</font></td>");
<PRINTLN>(" <td height=200 bgcolor=white><font size=4 color=blue>
"+armg.get(3).ToString()+" units</font></td>");
double units =Convert.ToDouble(armg.get(3).ToString());
totalBill(units);
<PRINTLN>(" </tr>");
<PRINTLN>(" </tr>");
<PRINTLN>(" <tr>");
<PRINTLN>(" </tr>");
<PRINTLN>("</table>");
  <PRINTLN>("<br>");
  <PRINTLN>("<br>");
  <PRINTLN>("<br>");
  <PRINTLN>("<br>");
  <PRINTLN>("<br>");
  <PRINTLN>("<br>");
<PRINTLN>("<br>");
  <PRINTLN>("<br>");
  <PRINTLN>("<br>");
  <PRINTLN>("<br>");
  <PRINTLN>("<br>");
  <PRINTLN>("<br>");
```

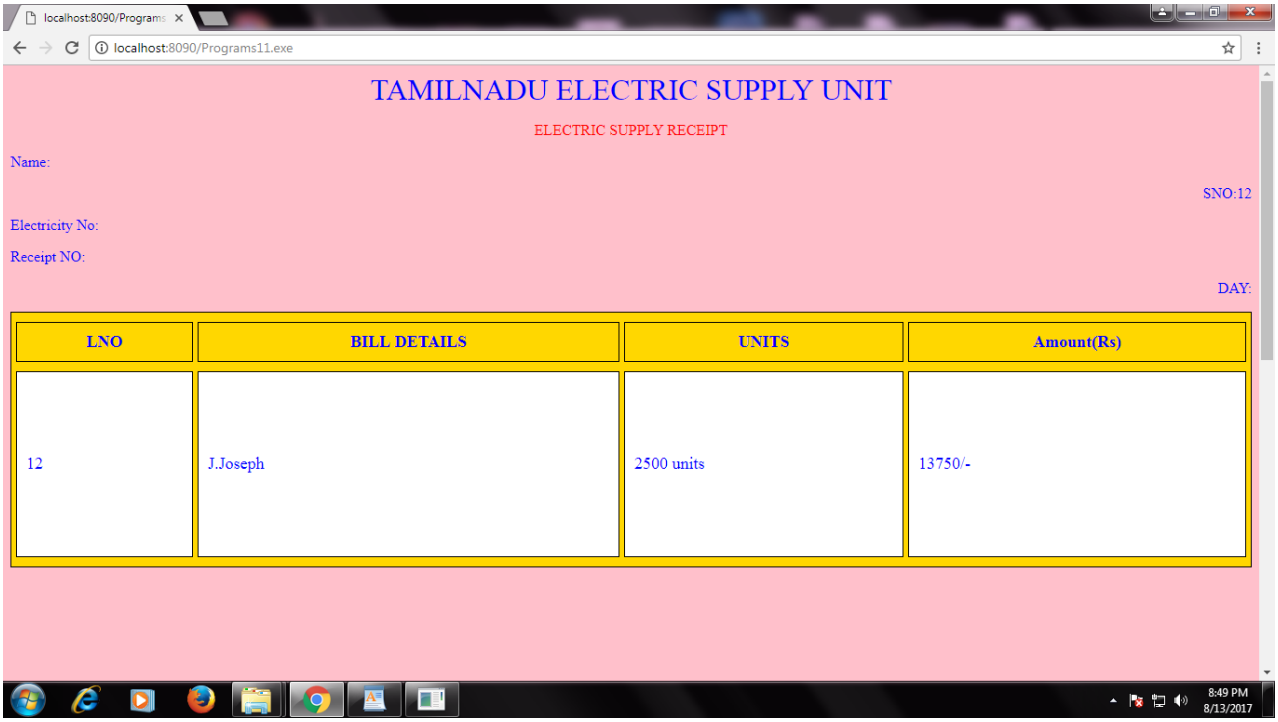
```
<PRINTLN>("</form>");
<PRINTLN>("<p align=right><font size=3 color=blue>Electricity
accountant  Signature</font></p>");
<PRINTLN>("</html>");
String g = WDBASQL.WDBASQLS("datastores", "USEDATABASE", "dbpwds",
"C:\\Programs\\WNOSQL\\WNOSQLProgramfiles\\WNOSQL-cod");
          String   t = WDBASQL.WDBASQLS("dbuser", "dbpwds", 1,
"wilmix78", "wilmix78", 1, 5, g);
String q = "CREATETABLE from electricitybill 0 to 0 , 1 to 5 ?= 6639
By 6639 f(x) : {SNO,LNO,BILLDETAILS,UNITS}: {} :{2,4}";
wdbaconn.WDBAQUERY(q);
Char  c= ' ';
ArrayList
datas1=WDBASQL.Query("TABLESIZE()","electricitybill","0",null,19,"","
, null,"",0,"","",c,null,t,1,5);
String t1="";
t1=armg.get(0).ToString()+","+armg.get(1).ToString()+","+armg.get(2).T
oString()+","+armg.get(3).ToString();
String  s12 ="INSERTINTO from electricitybill 0 to "+datas1.size()+" ,
1 to 5 ?= A By 1 1 : {0} : {"+t1+"} : {0}";
  wdbaconn.WDBAQUERY(s12);
<PRINTLN>(" </table>");
<PRINTLN>(" </form>");
<PRINTLN>(" </html>");
      }
   }
}
```

Input:


Electricity Bill Calculation
localhost:8090/electricitybill.cdollar
ELECTRICITY BILL CALCULATION
Enter Your SNO: 12
Enter your L.N.O : 12
Kindly Enter Bill Details : J.Joseph
UNITS USED : 2500
CALCULATE
Reset
Click here to view ELECTRICITY BILL CUSTOMERS ...
8:47 PM
8/13/2017

Output

=======



CHDOLLAR with JDollar(.j$) to list the values from wnosql database.

```
<JDollar>
<USE> <WEB>.util;
<USE> Security;
<USE>  CUTIL;

<PACK> Program5
{
    <CLASS> Prog
   {
      public void Main()
      {
wdbaconn.JSTARWDBAQUERY("datastores", "USEDATABASE", "dbpwds",
"C:\\Programs\\WNOSQL\\WNOSQLProgramfiles\\WNOSQL-cod");
 wdbaconn.JSTARWDBAUSERQUERY("dbuser", "dbpwds", "wilmix78",
"wilmix78");
String  qh2="SELECTRVAL from electricitybill 7 to 24 , 1 to 5 ?= A By
1 1 : {0} : {0} :{0}";
```

```
  wdbaconn.WDBAQUERY(qh2);
<TRY>
{
String s=Secure.RetreiveSecure("output.wdba" ,0); //retrieve  the
query  output   from   wdba file
s=s.Replace("[","").Replace("]","");
string []ename = s.Split(' ');
int lengthA = ename.Length;
<PRINTLN>(" <html>");
<PRINTLN>(" <form>");
<PRINTLN>(" <Table  bgcolor=gold>");
  <PRINTLN> ("Electricity customers...");
<PRINTLN> ("<BR>********************");
 ArrayLinearList x =  new ArrayLinearList();
//ArrayLinearList  is  used  to  list
//the reverse  order  of  insertion   data  using
//iterator.

int  c=0;
for  (int  i=7;i<lengthA;i+=1)
{
x.add(c,ename[i].Replace(",","").Replace("%2F","/").Replace("%40","@")
.Replace("+"," "));

}
<PRINTLN>(" </table>");
<PRINTLN>(" </form>");
<PRINTLN>(" </html>");
      // output using an iterator
      Iterator y = x.iterator();
      while (y.hasNext())
         <PRINTLN>(y.next() + " ");
    Environment.Exit(-1);
}
<CATCH>(<EXE> e)

{
```

```
}

}
}

}
```

UNIT 8: OAKJAVA7 with JAVA/J2ee Framework

A) What are the steps for using Struts MVC with JWP?

Step a) Struts MVC cannot directly interact with jwp

so the one way to store all the struts form details in mysql /oracle database.

Step b) while using Register.html with JWP

eg)

Register.html

==========

<html>

.....

<form method="post" action="http://localhost:8091/struts/Onlinetest.jsp" >

</form>

.....

</html>

Step c) Use JWP with VSLASH (with J$part2 framework) with Hibernate

to retrieve from mysql/oracle database

SAMPLE-15: OAKJAVA7

==========

OAKJAVA7 is simillar to java servlet approach..

so java servlet programmers can easily follow it...

Program-1

==========

```
<WEB> // declare as OAKJAVA7 package

<USE> <CDOLLARS>.util; // load util package

<USE> Security; // load security package


<USE> CDollar.WDBA; // load Cdollar.wdba packages

<USE> WDBA; //load wdba packages

<USE> chdollarformat; // load chdollarformat packages for png screen
shot operations


<PACK> Program8

{


   <CLASS> Prog

  {



static double pressure = 5.5;
```

```
    public static void totalBill(double consumerUnit) //  write an  electricity bill  api
    {
        double Month =( pressure * consumerUnit) * 1;// perform  calcualtion
for  electricity bill
<PRINTLN>("<td height=200 bgcolor=white>  <font size=4 color=blue>"+ Month+"/-
</font></td>");

    }

    public void main()
    {

ArrayList arm1= new ArrayList();

arm1.add("Sno");
arm1.add("Lno");
arm1.add("Billdetails");
```

```
arm1.add("Units");

arm1.add("NOT");



// a electrcitybill form contains Sno,Lno,Billdetails,Units fields....

// so this fields are added to arraylist....



// don't use HTML.displayhtml in OAKJAVA7 for displaying table with form

//since it will not display correctly from html file...

//so this OAKJAVA7 -servlet approach is used for displaying bill format....

// eg) electricity bill or telephone bill.



<PRINTLN>("<HTML>");
```

```
<PRINTLN>("<head> <style>");



<PRINTLN>("table, th, td {");
   <PRINTLN>(" border: 1px solid black; ");
<PRINTLN>("}");
<PRINTLN>("</style>");
<PRINTLN>("</head>");



<PRINTLN>("<BODY bgcolor=pink>");

<PRINTLN>("<form>");



ArrayList  armg= Request.Query(arm1,"electricitybill.cl.dsn",4,1);


 string  s=armg.get(0).ToString();

 <PRINTLN>("<table style='width:100%;' cellpadding=10 cellspacing=5 bgcolor=gold >");
```

```
<PRINTLN>("<tr>");

<PRINTLN>("  <p align=center><font size=6
color=blue>TAMILNADU  ELECTRIC  SUPPLY UNIT</font></p> ");

<PRINTLN>("  <p align=center><font size=3 color=red>ELECTRIC  SUPPLY
RECEIPT</font></p> ");

<PRINTLN>(" <p align=left><font size=3 color=blue>Name:</font> </p><p
align=right><font size=3 color=blue>SNO:"+s+"</font></p>");

<PRINTLN>("<p align=left><font size=3 color=blue>Electricity No:</font></p>");

<PRINTLN>("<p align=left><font size=3 color=blue>Receipt NO:</font></p><p
align=right><font size=3 color=blue>DAY:</font></p>");

<PRINTLN>("</tr>");

  <PRINTLN>("<tr>");

<PRINTLN>(" <th><font size=4 color=blue> LNO </font></th>");

<PRINTLN>(" <th><font size=4 color=blue> BILL DETAILS</font></th>");
```

```
<PRINTLN>(" <th><font size=4 color=blue> UNITS </font></th>");

<PRINTLN>("<th> <font size=4 color=blue> Amount(Rs)</font></th>");




<PRINTLN>(" </tr>");

<PRINTLN>(" <tr>");



<PRINTLN>(" </tr>");

<PRINTLN>(" <tr>");

<PRINTLN>(" <td height=200  bgcolor=white><font size=4 color=blue>
"+armg.get(1).ToString()+"</font></td>");

<PRINTLN>("<td height=200 bgcolor=white><font size=4
color=blue>"+armg.get(2).ToString().Replace("%40++","@").Replace("%2F","/").Replace("+",
" ")+"</font></td>");

<PRINTLN>(" <td height=200 bgcolor=white><font size=4 color=blue>
"+armg.get(3).ToString()+" units</font></td>");
```

```
double units =Convert.ToDouble(armg.get(3).ToString());

totalBill(units);




<PRINTLN>(" </tr>");

<PRINTLN>(" </tr>");

<PRINTLN>(" <tr>");


<PRINTLN>(" </tr>");



<PRINTLN>("</table>");

  <PRINTLN>("<br>");

  <PRINTLN>("<br>");

  <PRINTLN>("<br>");

  <PRINTLN>("<br>");
```

```
  <PRINTLN>("<br>");
  <PRINTLN>("<br>");


<PRINTLN>("<br>");
  <PRINTLN>("<br>");
  <PRINTLN>("<br>");
  <PRINTLN>("<br>");
  <PRINTLN>("<br>");
  <PRINTLN>("<br>");


<PRINTLN>("</form>");

<PRINTLN>("<p align=right><font size=3
color=blue>Electricity  accountant  Signature</font></p>");


<PRINTLN>("</html>");
```

```
String g = WDBASQL.WDBASQLS("datastores", "USEDATABASE", "dbpwds",
"C:\\Programs\\WNOSQL\\WNOSQLProgramfiles\\WNOSQL-cod");

        String  t = WDBASQL.WDBASQLS("dbuser", "dbpwds", 1, "wilmix78",
"wilmix78", 1, 5, g);

Char  c= ' ';

ArrayList  datas1=WDBASQL.Query("TABLESIZE()","electricitybill","0",null,19,"","",
null,"",0,"","",c,null,t,1,5);

//calculate  the  electricity  bill  table  size

String t1="";
```

```
t1=armg.get(0).ToString()+","+armg.get(1).ToString()+","+armg.get(2).ToString()+","+ar
mg.get(3).ToString();

// get four parameters

String s12 ="INSERTINTO from electricitybill 0 to "+datas1.size()+" , 1 to 5 ?= A By 1
1 : {0} : {"+t1+"} : {0}";

// calculate the arraylist size and pass the Query string to wdbaconn api to
execute the query


  wdbaconn.WDBAQUERY(s12);


// so what happens it will insert four values in rows
and cols as 1,5 respectively.

// so why we are calculating table size ;this is for inserting multiple values

// otherwise we cannot insert multiple values...
```

```
<PRINTLN>(" </table>");


<PRINTLN>(" </form>");

<PRINTLN>(" </html>");




// this api will tak e the screen shot of the electricity
bill and convert to png file.

CONVERTTOPNG.call("electricitybill.png");




    }

  }

}
```

==========

SAMPLE-17: Write a JWP Webapplication to perform Autocomplete operations

==========

autocomplete1.html

==========

```
<!doctype html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>jQuery UI Autocomplete - Default functionality</title>
  <link rel="stylesheet" href="//code.jquery.com/ui/1.12.1/themes/base/jquery-ui.css">
  <link rel="stylesheet" href="/resources/demos/style.css">
  <script src="https://code.jquery.com/jquery-1.12.4.js"></script>
  <script src="https://code.jquery.com/ui/1.12.1/jquery-ui.js"></script>
  <script>
```

```
$( function() {
  var availableTags =
```

SAMPLE-17: To perform autocomplete operation

=========

```
<WEB> //start of oakjava7 program

<PACK> Program12 // create namespace as Program12 so that we
can use this namespace as a library in another oakjava7 program
{

  <CLASS> Prog // <CLASS> represents class
 {


    public void main() // C type main
    {
```

```
HTML.displayhtml("autocomplete1.html"); // now your declare HTML.displayhtml to load autocomplete1.html


    <PRINTLN>("[");
    <PRINTLN>("'JWEB(JDollar)',");
    <PRINTLN>("'DOTWEB',");
    <PRINTLN>("'OAKJAVA7',");
    <PRINTLN>("'PHP',");
    <PRINTLN>("'PHYTHON',");
    <PRINTLN>("'C',");
    <PRINTLN>("'DOTNET',");
    <PRINTLN>("'JAVA',");
    <PRINTLN>("'GO',");
    <PRINTLN>("'Angularjs',");
    <PRINTLN>("'Android',");
    <PRINTLN>("'Bootstrap.js',");
    <PRINTLN>("'JavaScript'");
    <PRINTLN>("]");


// add the data values
```

```
HTML.displayhtml("autocomplete2.html");// now you declare HTML.displayhtml
to load autocomplete1.html




      }
   }
}
```

autocomplete2.html

==========

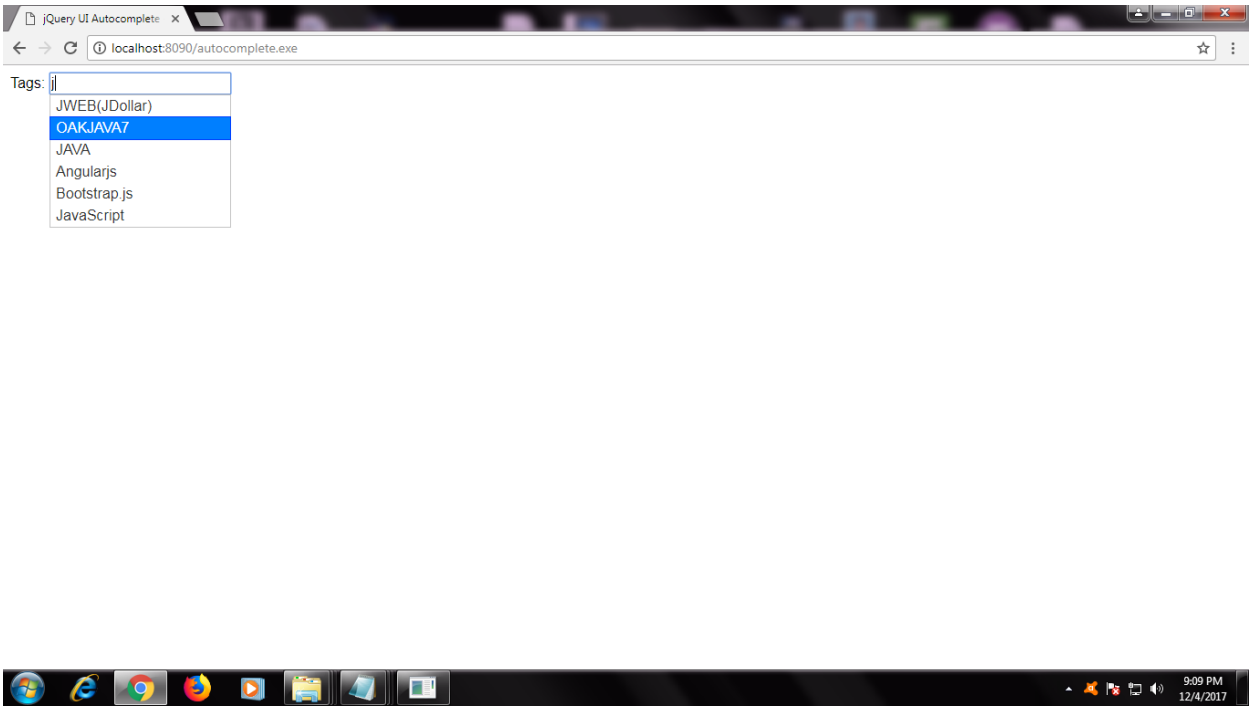
```
;
    $( "#tags" ).autocomplete({
      source: availableTags
    });
```

```
  } );
  </script>
</head>
<body>

<div class="ui-widget">
  <label for="tags">Tags: </label>
  <input id="tags">
</div>

</body>
</html>
```

OUTPUT:

now you execute .exe files in browser you will get the following output...

so it is a very easy approach for autocomplete operation with jwp using OAK JAVA7...



For GRID FORMAT REPORT DISPLAY kindly follow Gridformat html -template

GRID2.html

==========

```
<script>
window.onload = function() {
editableGrid = new EditableGrid("DemoGridAttach");

// declare everything
editableGrid.load({ metadata: [
{ name: "SNO", datatype: "string", editable: true },
```

```
{ name: "NAME", datatype: "string", editable: true },
{ name: "Age", datatype: "integer", editable: true },
{ name: "CTC", datatype: "double(m,2)", editable: true },
{ name: "country", datatype: "string", editable: true, values:
   { 'ASIA': {"is": "ISREAL", "sing" : "Singapore", "IND" : "India", "D" : "DUBAI"},
  'America': { "br" : "Brazil", "ca": "Canada", "us" : "USA" },
   }
},
{ name: "email", datatype: "email", editable: true },
{ name: "yes/no", datatype: "boolean", editable: true },
{ name: "DATE", datatype: "date", editable: true }
]});

// then we attach to the HTML table and render it
editableGrid.attachToHTMLTable('htmlgrid');
editableGrid.renderGrid();
}
</script>
</head>
// write a OAKJAVA7 program for that .....
```

<WEB>

.....

HTML.displayhtml(GRID1.html"); // will contains grid html template

HTML.displayhtml(GRID2.html");

<PRINTLN>("<body>");

<PRINTLN>("<h1>GRID TABLE FORMAT Back to menu</h1>");

<PRINTLN>("<table id=htmlgrid class=testgrid>");

<PRINTLN>("<tr>");

<PRINTLN>("<th>REUBEN</th>");

<PRINTLN>("<th>34</th>");

<PRINTLN>("<th>1000000</th>");

<PRINTLN>("<th>6.5</th>");

<PRINTLN>("<th>is</th>");

<PRINTLN>("<th>ww@yahoo.com</th>");

<PRINTLN>("<th>true</th>");

<PRINTLN>("<th>12/03/2017</th>");

<PRINTLN>("</tr>");

<PRINTLN>("</table>");

<PRINTLN>("</body>");

<PRINTLN>("</html>");

SYNTAX

=======

<java-Spring-packages>

public class <javaSpring-package-name>

{

static void main(String[] args)

{

<! JAVA Spring code !>

}

}

Advantages of OAKJAVA7

==========

a) We can use OAKJAVA7 with JAVA Spring

and further we can use with JDollar(JWEB) Programming Langauge.

since JDollar(JWEB) easily interacts with java spring;

further JAVA spring can be integerated with S@ ; so this will

create a optimized code... and hence increase the productivity for the organization

b) By this approach we can finish any webapplication project as easy as possible. since this approach brings optimized code.

c) It makes the developers keen interest on this approach.

so thus it solves the Spring
Framework demerits ie) Spring projects are more bulky.

UNIT 9:OAKJAVA7 NATIVE INTERFACE

Example:1: Programs12.java7h

```
<WEB>

<PACK> Program12
{

   <CLASS> Prog
  {


     public void call()
     {



HTML.displayhtml("autocomplete1.html");

  <PRINTLN>("[");
  <PRINTLN>("'JWEB(JDollar)',");
  <PRINTLN>("'DOTWEB',");
  <PRINTLN>("'OAKJAVA7',");
  <PRINTLN>("'PHP',");
  <PRINTLN>("'PHYTHON',");
  <PRINTLN>("'C',");
  <PRINTLN>("'DOTNET',");
  <PRINTLN>("'JAVA',");
  <PRINTLN>("'GO',");
  <PRINTLN>("'Angularjs',");
  <PRINTLN>("'Android',");
  <PRINTLN>("'Bootstrap.js',");
  <PRINTLN>("'JavaScript'");
  <PRINTLN>("]");
```

```
HTML.displayhtml("autocomplete2.html");




    }
  }
}
```

Now compile using

Javac7 Programs12.java7h

Output:

It will generates .dll and .h encrypted file

So we can use .dll in other JAVA7.0 program

We can call using

Programs12.Prog.call(); in other JAVA7.0 Program

How we can use jdk1.7 tools in JAVA7.0?

How we can achieve it?

Extract the jdk1.7 tools where java7.0 software is located…

And call using import java.io.*; in java7.0

So we can use the jdk packages in java7.0.

How we implement JAVA7.0 Technology?

JAVA7.0 is implemented in java ,j$, and C#

That's why it allow java parent packages..

Can we use JAVA7.0 with javaSpring/mybatics ,etc?
Yes.

Why JAVA7.0 is best one ? What are the Major Advantages

Of java7.0?

JAVA7.0 also provides an obfusucated code
with C/C++ and JAVA oops and
Can be used with JDk tools so it is the best one.
Java7.0 can be used with jstar, C#, j$,nj$,etc.
It is easy and fast to focus. It is also learnable p.l..
It produces prototype and easily interacts
With wnosql db.

UNIT-10 : JAVA7.0 MOCK EXERCISES

MOCK EXERCISES : (2 *100= 200 Marks)

MOCK EXECISES -SECTION-A (1 * 50 = 50 marks)
==========

1) Explain Briefly about JAVA7.0 Advanced concepts

with an example. What is he major advantages of using java7.0
(5*2 =10 mark)

2) Write a JAVA7.0 to generate only .dll file

when it is compiled used java7 compiler.. (5*1 =5 mark)

3) Write a JAVA7.0 to provide operator overloading conepts.

(5 *1 = 5mark)

4) i) Write a JAVA7.0 program to find biggest among Given N nos...

ii) Write a JAVA7.0 Program to merge two outputs using JAVA7 collections

(5 * 2 = 10 marks)

5) Write a JAVA7.0 program with Spring with Hibernate orm framework

i) use Mysql in this case

ii) Add student details.

iii) View student details.

iv) Search a student according to rollno and list the particular student details

v) Use JWP server with Hibernate to achieve it.

(5* 4 = 20 marks)

MOCK EXERCISES -SECTION-B (1 * 150 = 150 marks)

==========

6) Create a Online test project with JAVA7.0

using Springorm framework and use mysql db in this case...

(1 * 25 = 25 marks)

7) Create a House Management Project with JAVA7.0

use Struts with oracle db in this case..

(1 * 25 = 25 marks)

8) Create a JWP page with list school details

in a tree format use wnosql with oakjava7 in this case

and perform the operations add ,delete ,update.
And write the final output to a file using JAVA7.0

(1 * 50 = 50 marks)

9) Create a Remote Webapplication Banking project using JWP

with CHDollar with OAKJAVA7

perform banking transcations like

a) Credit b) Debit c) List the customer details

d) Use wnosqldb

e) List all the last 10 transcations made for the customer...

(1 * 50 = 50 marks)