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EXPERIEMENT NO : 06 (GROUP – B)

TITLE : Write a program using Lex specifications to implement lexical analysis phase of compiler to generate tokens of subset of Java' program.

NAME : PROF. ANAND N. GHARU

ROLL NO :

CLASS : TE COMPUTER **DATE** : 04/01/2018

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```

//Input File To Given Program //

```

import java.io.*; class
Simple
{
public static void main(String args[])
{
System.out.println("\nHello Java");
}
}

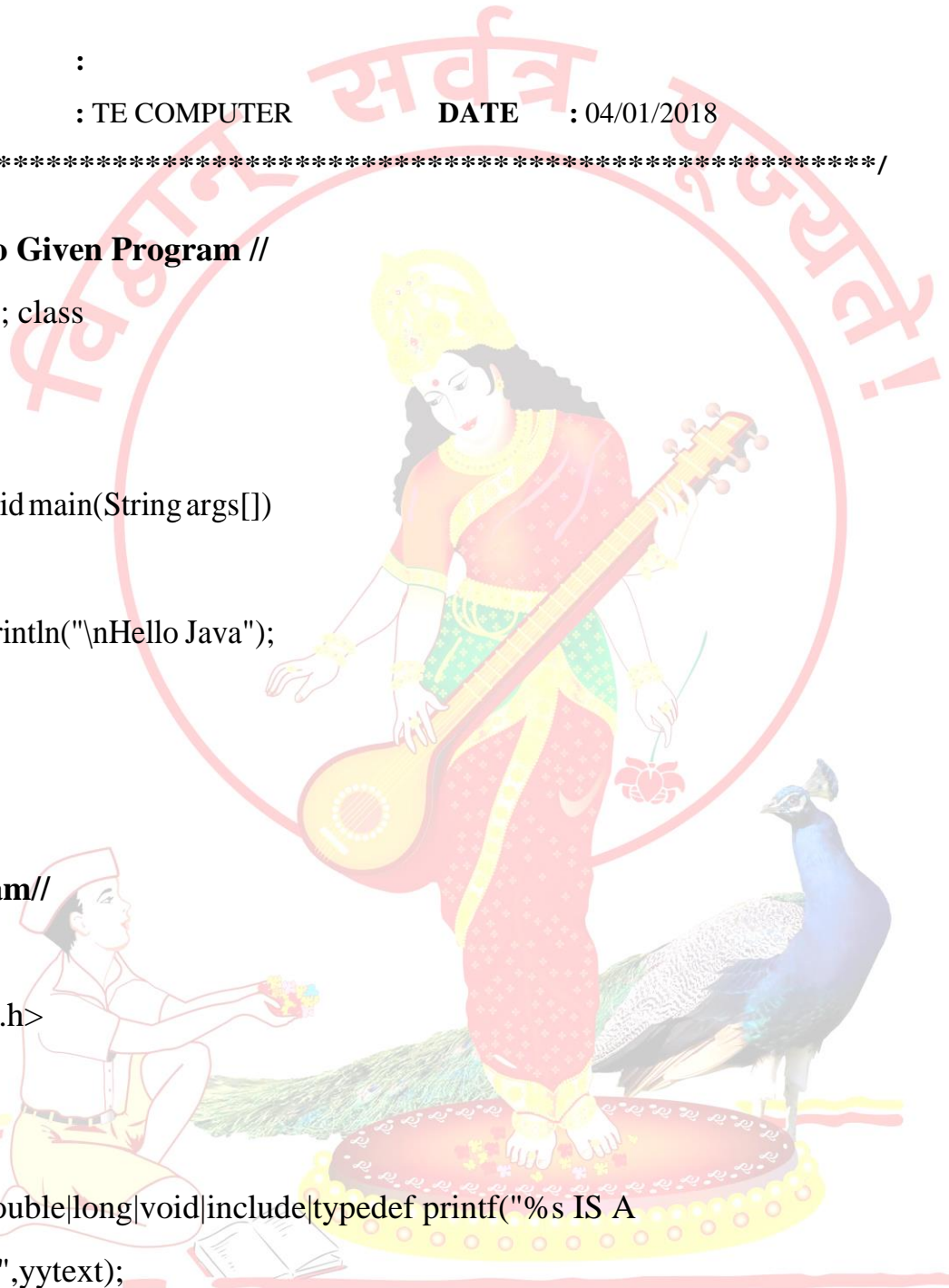
```

//Main Program//

```

%{
#include<stdio.h>
%}
%%
float|int|char|double|long|void|include|typedef printf("%s IS A
KEYWORD\n",yytext);

```



```

["|(|)|{|}|#|;|,|%|&"]printf("%s IS A SPECIAL SYMBOL\n", yytext);
[""]+[a-zA-Z0-9]+[""] printf("%s IS A MESSAGE\n", yytext);
[a-zA-Z] printf("%s IS A STRING CONSTANT\n", yytext);
[+|-|*|/] printf("%s IS A ARITHMETIC OPERATOR\n", yytext);
[getch|main|printf|scanf|return|clrscr] printf("%s IS A PREDEFINED
FUNCTION\n", yytext);
[a-zA-Z]*.h printf("%s IS A HEADER FILE\n", yytext);
[a-zA-Z]+[a-zA-Z0-9]* printf("%s IS AN IDENTIFIER\n", yytext);
[0-9]+ printf("%s IS A CONSANT\n", yytext);
= printf("%s IS AN ASSIGNMENT OPERATOR \n", yytext);
[<|>|<=|>|=|<>] printf("%s IS A RELATIONAL OPERATOR\n", yytext);
[&&|!|=|==] printf("%s IS A LOGICAL OPERATOR\n", yytext);
%%

```

```
int yywrap(void)
```

```
{
return 1;
}
```

```
int main()
```

```
{
FILE *fp=fopen("simple.java","r");
yyin = fp;
yylex();
yywrap(); return
0;
}
```



//Output

pvgcoen-4@pvgcoen4-ThinkCentre-M700:~\$ lex abc.l

pvgcoen-4@pvgcoen4-ThinkCentre-M700:~\$ gcc lex.yy.c -ll

pvgcoen-4@pvgcoen4-ThinkCentre-M700:~\$./a.out

import IS AN IDENTIFIER

java IS AN IDENTIFIER

.io IS AN IDENTIFIER

.* IS A ARITHMATIC OPERATOR

; IS A SPECIAL SYMBOL

class IS AN IDENTIFIER

Simple IS AN IDENTIFIER

{ IS A SPECIAL SYMBOL

public IS AN IDENTIFIER

static IS AN IDENTIFIER

main IS AN IDENTIFIER (

IS A SPECIAL SYMBOL

String IS AN IDENTIFIER

args IS AN IDENTIFIER

[] IS A SPECIAL SYMBOL

{ IS A SPECIAL SYMBOL

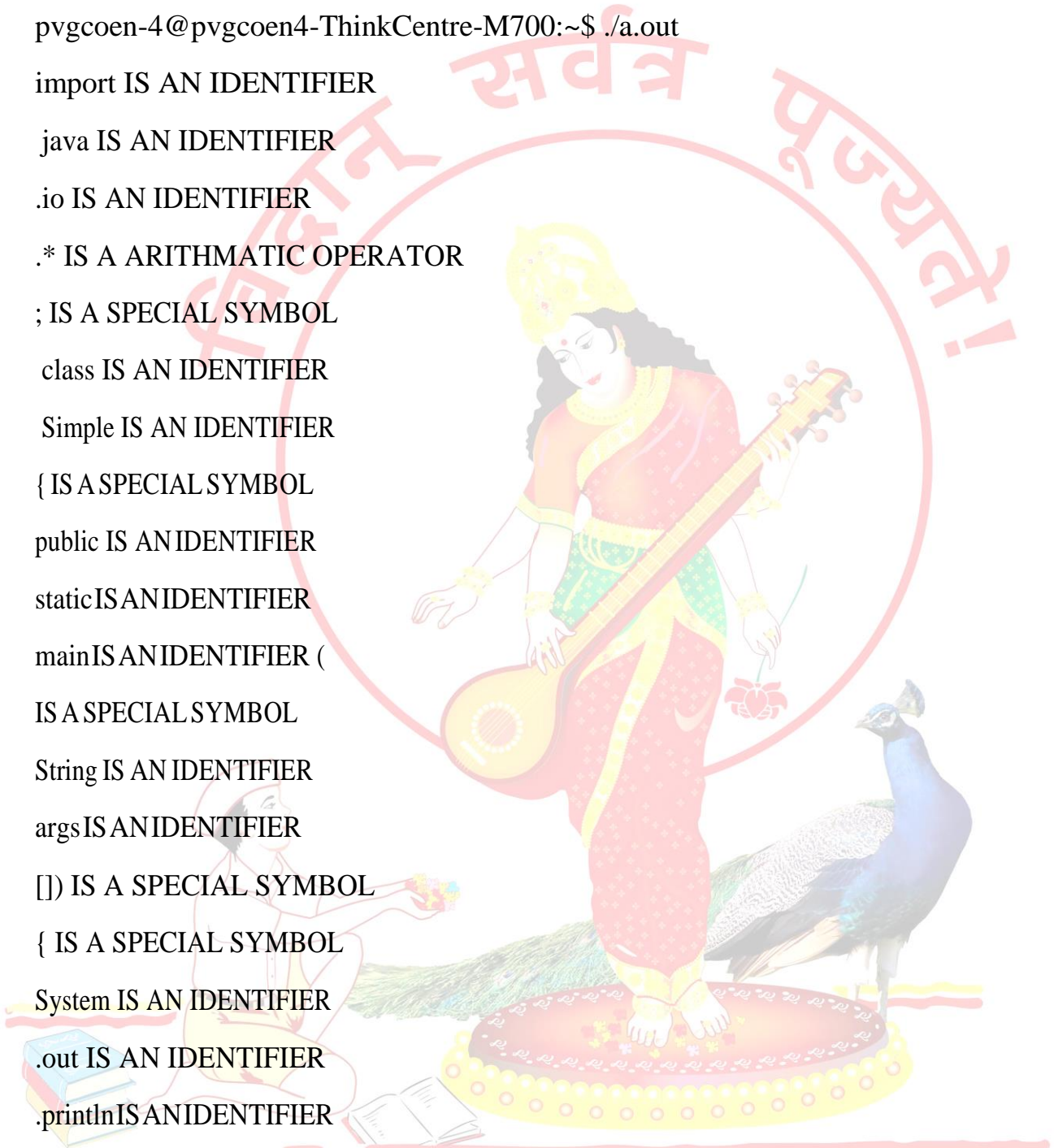
System IS AN IDENTIFIER

.out IS AN IDENTIFIER

.println IS AN IDENTIFIER

(IS A SPECIAL SYMBOL

" IS A SPECIAL SYMBOL



\nHello IS AN IDENTIFIER

Java IS AN IDENTIFIER

" IS A SPECIAL SYMBOL

)IS A SPECIAL SYMBOL

;IS A SPECIAL SYMBOL

}IS A SPECIAL SYMBOL

}IS A SPECIAL SYMBOL

