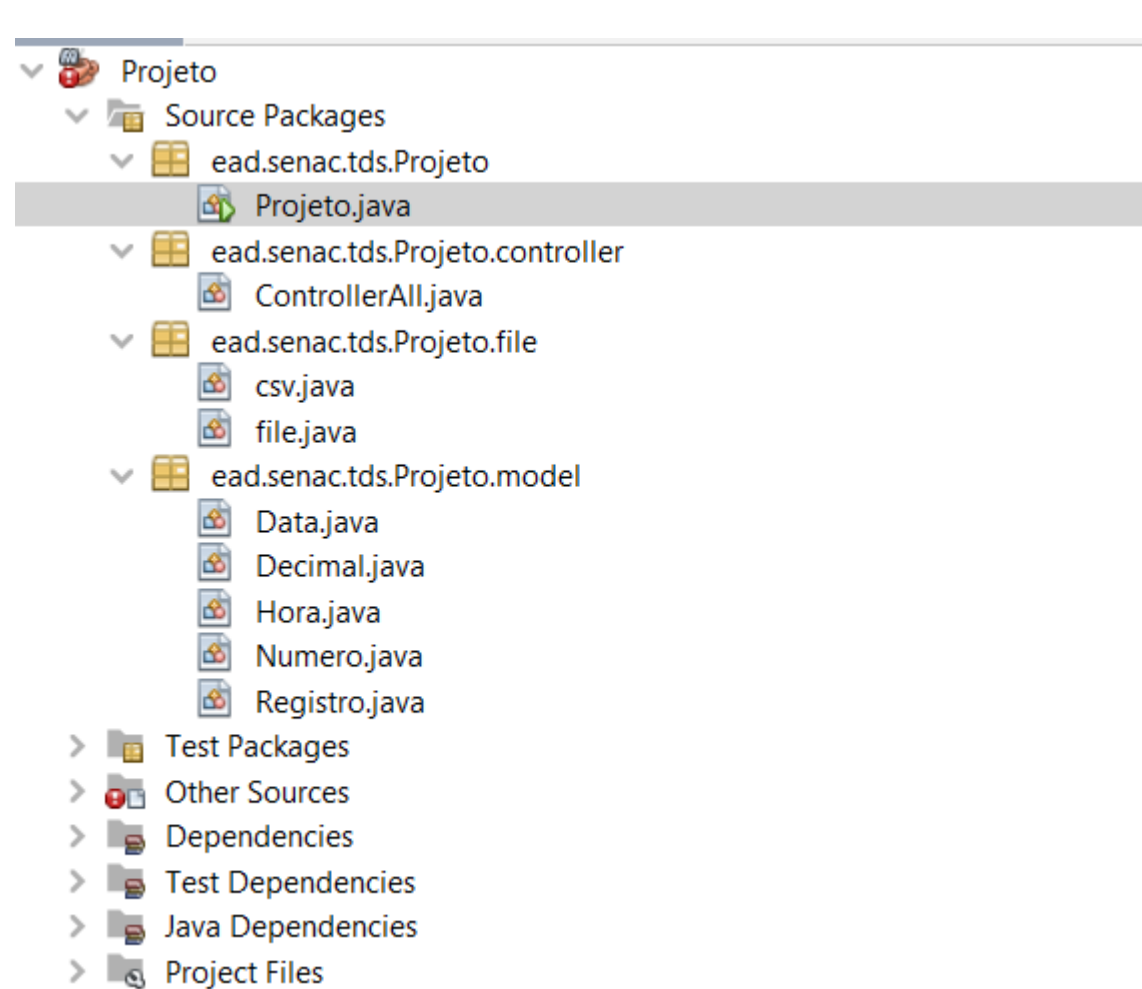SPRING Framework

```
package ead.senac.tds.Projeto;

import ead.senac.tds.Projeto.model.Data;
import ead.senac.tds.Projeto.model.Registro;
import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;
```

```java
@SpringBootApplication
public class Projeto {

    public static void main(String[] args) {

        SpringApplication.run(Projeto.class, args);

        System.out.println();
        System.out.println(new Data().DataCompleta());

        System.out.println(Registro.Day("Realização:\t[", "] (", ")"));

        System.out.print("Link:");
        System.out.print("\t\t(");
        System.out.print(Registro.Host("index"));
        System.out.println(")");

        System.out.println();
        System.out.println("Acesso pelo:");
        System.out.println(Registro.host);
```
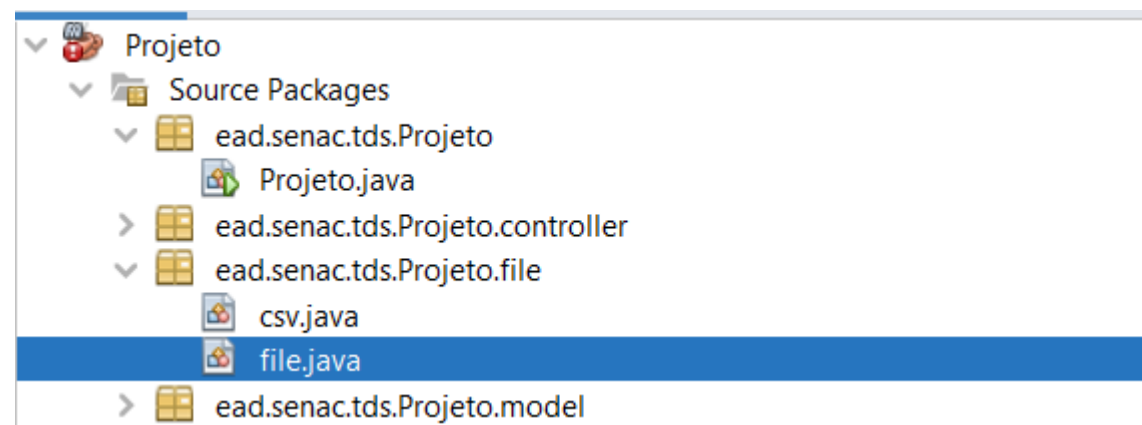
```
    }

}
```

```java
package ead.senac.tds.Projeto.file;

import java.io.File;
import java.io.FileWriter;
import java.io.IOException;
import java.util.ArrayList;
import java.util.List;
import java.util.Scanner;

/**
 *
 * @author josue
 */
```

```java
public class file {

    private String opner;

    private ArrayList<String> text = new ArrayList<>();

    private ArrayList<String> tema = new ArrayList<>();

    public file(String arq){

        this.opner = arq;

        try{

            File menu = new File(this.opner);

            if(menu.createNewFile()){

                System.out.println("Arquivo: \"" + arq + "\" criado!");

            }/* else {
```

```java
        System.out.println("\"" + arq + "\"");

    }/*if(menu.createNewFile())*/

    Scanner reading = new Scanner(menu);

    while (reading.hasNextLine()){

        String data = reading.nextLine();

        this.text.add(data);

    }

}catch(IOException evt){

    System.out.println(evt);

}
```

```java
}//Files

public void Write(String insert){

    text.clear();

    try{

        File menu = new File(opner);

        Scanner reading = new Scanner(menu);

        while (reading.hasNextLine()){

            text.add(reading.nextLine());

        }

        try (FileWriter dir = new FileWriter(opner)) {
            if(!text.isEmpty()){
```

```java
            for(int i = 0; i < text.size(); i++){

                dir.write(text.get(i) + "\n");

            }//for(int i = 0; i < text.size(); i++)

        }//if(!text.isEmpty())

        dir.write(insert);
    }

    this.text.add(insert);

}catch(IOException evt){

    System.out.println(evt);

}

this.tema.clear();
```

```java
}//Write(String insert)

public void WriteAll(List<String> insert){

    this.text.clear();
    this.tema.clear();

    try{

        File menu = new File(opner);

        Scanner reading = new Scanner(menu);

        while (reading.hasNextLine()){

            this.text.add(reading.nextLine());

        }

        try (FileWriter dir = new FileWriter(opner)) {
```

```java
if(!this.text.isEmpty()){

    for(int i = 0; i < this.text.size(); i++){

        dir.write(this.text.get(i) + "\n");

    }//for(int i = 0; i < text.size(); i++)

}//if(!text.isEmpty())

for(int x = 0; x < insert.size(); x++) {

    this.text.add(insert.get(x));

    if(x > 0){

        dir.write("\n");

    }//if(x < insert.length-1)

    dir.write(insert.get(x));
```

```java
        }//(String e : insert)

    }

    }catch(IOException evt){

        System.out.println(evt);

    }

}//WriteAll(List<String> insert)

public void WriteAll(String[] insert){

    this.text.clear();
    this.tema.clear();

    try{

        File menu = new File(opner);
```

```java
Scanner reading = new Scanner(menu);

while (reading.hasNextLine()){

    this.text.add(reading.nextLine());

}

try (FileWriter dir = new FileWriter(opner)) {

    if(!this.text.isEmpty()){

        for(int i = 0; i < this.text.size(); i++){

            dir.write(this.text.get(i) + "\n");

        }//for(int i = 0; i < text.size(); i++)

    }//if(!text.isEmpty())
```

```java
            for(int x = 0; x < insert.length; x++) {

                this.text.add(insert[x]);

                if(x > 0){

                    dir.write("\n");

                }//if(x < insert.length-1)

                dir.write(insert[x]);

            }//(String e : insert)

        }

    }catch(IOException evt){

        System.out.println(evt);

    }
```

```java
}//WriteAll(String[] insert)

public void Delete(int op){

    try{

        text.clear();
        tema.clear();

        int i = 0;
        int x = 0;

        File menu = new File(opner);

        Scanner reading = new Scanner(menu);

        while (reading.hasNextLine()){

            tema.add(reading.nextLine());
```

```java
}//while (reading.hasNextLine())

FileWriter dir = new FileWriter(opner);

do{

    if(x != op){

        if(i > 0){

            dir.write("\n");

        }

        dir.write(tema.get(x));

        text.add(tema.get(x));

        i++;
    }
```

```java
            x++;

        }while(x < tema.size());

        dir.close();
        tema.clear();

    }catch(IOException evt){

        System.out.println(evt);

    }

}//public void Delete(int op)

public void Modify(int op, String txt){

    try{

        text.clear();
        tema.clear();
```

```java
//int i = 0;
int x = 0;

File menu = new File(opner);

Scanner reading = new Scanner(menu);

while (reading.hasNextLine()){

    tema.add(reading.nextLine());

}//while (reading.hasNextLine())

FileWriter dir = new FileWriter(opner);

do{

    if(x > 0){

        dir.write("\n");
```

```
        }

    if(x == op){

        dir.write(txt);
        text.add(txt);

    } else {

        dir.write(tema.get(x));
        text.add(tema.get(x));

    }

    x++;

}while(x < tema.size());

dir.close();
tema.clear();
```

```java
        }catch(IOException evt){

            System.out.println(evt);

        }

    }//public void Delete(int op)

    public int Max(){

        if(text.isEmpty()){

            return -1;

        } else {

            return text.size();

        }
```

```java
}//Max()

public String getLine(int j){

    String line = "invalid";

    if(j >= 0 && j < this.Max()){

        line = this.text.get(j);

    }//if(j >= 0 && j < this.Max())

    return line;

}//String getLine(int j)

public void Clear(){

    try{

        text.clear();
```

```java
            FileWriter dir = new FileWriter(opner);

            dir.write("");

        }catch(IOException evt){

            System.out.println(evt);

        }

    }//Clear()

}//Class
```
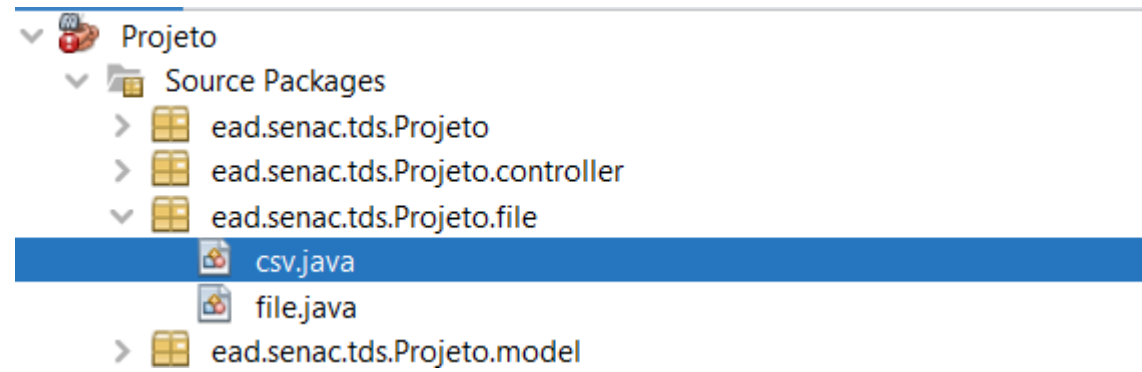
```java
package ead.senac.tds.Projeto.file;

import java.util.ArrayList;
import java.util.List;

/**
 *
 * @author josue
 */
public class csv extends file{

    private String jon;
    private char separator;
```

```java
private ArrayList<String> text = new ArrayList();

public csv(String title){

    super(title + ".csv");

    this.jon = ";";
    this.separator = ';';

}//csv(String title)

public csv(char separator, String title){

    super(title + ".csv");

    switch(separator){

        case ' ':
        case '\n':
        case ',':
        case '.':
```

```java
            this.jon = ";";
            this.separator = ';';
            break;

        default:
            this.jon = "" + separator;
            this.separator = separator;
            break;

    }//switch(separator)

}//csv(char separator, String title)

public void Insert(String [] data){

    String txt = "";

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

        if(i > 0){
```

```
            txt += this.jon;

        }//if(i > 0)

        txt += data[i].replaceAll(this.jon, " ");

    }//for(int i = 0; i < data.length; i++)

    super.Write(txt);

}//Insert(String [] data)

public void Insert(List<String> data){

    String txt = "";

    for(int i = 0; i < data.size(); i++){

        if(i > 0){

            txt += this.jon;
```

```
        }//if(i > 0)

        txt += data.get(i).replaceAll(this.jon, " ");

    }//for(int i = 0; i < data.length; i++)

    super.Write(txt);

}//Insert(String [] data)

public void InsertAll(String[] txt){

    String date = "";

    for(int x = 0; x < txt.length; x++){

        if(x > 0){

            date += this.separator;
```

```java
        }

        date += txt[x];

    }//for(int x = 0; x < txt.length; x++)

    this.text.add(date);

}//InsertAll(String[] txt)

public void InsertAll(List<String> txt){

    String date = "";

    for(int x = 0; x < txt.size(); x++){

        if(x > 0){

            date += this.separator;

        }
```

```java
            date += txt.get(x);

    }//for(int x = 0; x < txt.length; x++)

    this.text.add(date);

}//InsertAll(List<String> txt)

public void InsertAll(){

    String[] txt = new String[this.text.size()];

    for(int x = 0; x < text.size(); x++){

        txt[x] = text.get(x);

    }//for(int x = 0; x < text.size(); x++)

    super.WriteAll(txt);
```

```java
            this.text.clear();

    }//Add(String txt)

    public void Remove(int num){

        if(num >= 0 && num < super.Max() && super.Max() >= 0){

            super.Delete(num);

        }

    }//Remove(int num)

    public void Reply(int num, String [] data){

        String txt = "";

        if(num >= 0 && num < super.Max() && super.Max() >= 0){

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

```java
        if(i > 0){

            txt += this.jon;

        }//if(i > 0)

        txt += data[i].replaceAll(this.jon, " ");

    }//for(int i = 0; i < data.length; i++)

}//if(num >= 0 && num < super.Max() && super.Max() >= 0)

super.Modify(num, txt);

}//Reply(int num, String [] data)

public void Reply(int num, List<String> data){

    String txt = "";
```

```java
        if(num >= 0 && num < super.Max() && super.Max() >= 0){

            for(int i = 0; i < data.size(); i++){

                if(i > 0){

                    txt += this.jon;

                }//if(i > 0)

                txt += data.get(i).replaceAll(this.jon, " ");

            }//for(int i = 0; i < data.length; i++)

        }//if(num >= 0 && num < super.Max() && super.Max() >= 0)

        super.Modify(num, txt);

    }//Reply(int num, List<String> data)

    public int Tot(int num){
```

```java
        int numb = -1;

        if(num >= 0 && num < super.Max()){

            numb = super.getLine(num).split(this.jon).length;

        }

        return numb;

    }


public int Tot(){

        return super.Max();

}//Tot()


public String Read(int line, int col){
```

```java
String txt = "";

int sum = 0;

if(line < super.Max()){

    String [] text = new String[super.getLine(line).split(this.jon).length];

    for(int i = 0; i < super.getLine(line).length(); i++){

        if(super.getLine(line).charAt(i) == this.separator){

            sum++;

        } else {

            text[sum] += super.getLine(line).charAt(i);

        }//if(super.getLine(line).charAt(i) == this.separator)

    }//for(int i = 0; i < super.getLine(line).length(); i++)
```

```
            if(col < text.length){

                if(text[col] != null){

                    txt = text[col].replace("null","");

                }//if(text[col] != null)

            }//if(col < text.length)

        }//if(line < super.Max())

    return txt;

}//Read()

public void Truncate(){

    super.Clear();
```

```
    }//Truncate()

}//Class
```
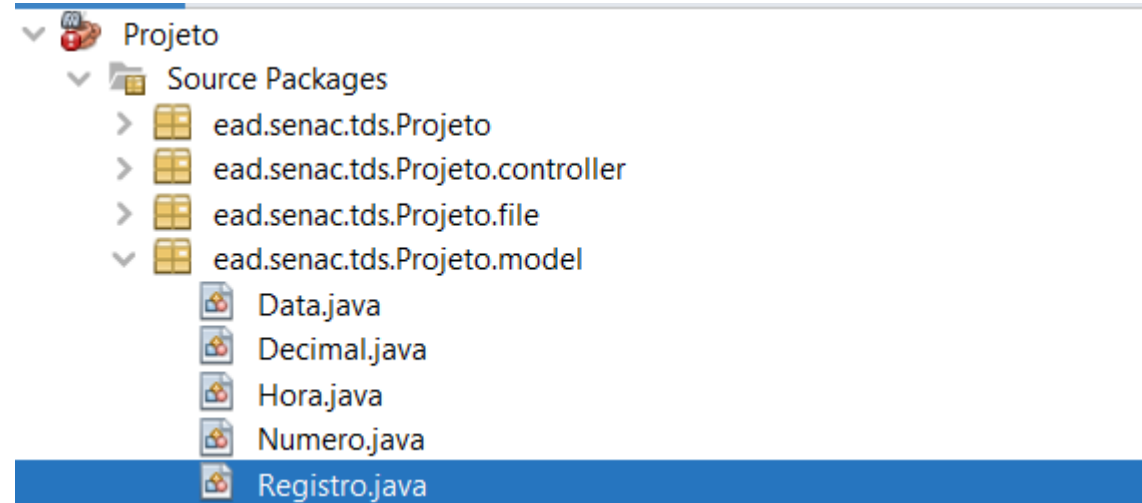
```java
package ead.senac.tds.Projeto.model;

import java.time.LocalDate;
import java.util.ArrayList;
import java.util.List;


/**
 *
 * @author josue
 */
public class Registro {
```

```java
public static LocalDate day = LocalDate.of(2024, 11, 18);
public static String host = "http://localhost:8080/";

public static String Day(String inicio, String meio, String fim){

    String txt = inicio;
    txt += new Data(Registro.day).DataAbreviada();
    txt += meio;
    txt += new Data(Registro.day).DataLinha(true);
    txt += fim;

    return txt;

}//Day(String separator)

public static String Day(String inicio, String meio){

    String txt = inicio;
    txt += new Data(Registro.day).DataAbreviada();
    txt += meio;
    txt += new Data(Registro.day).DataLinha(true);
```

```java
        return txt;

    }//Day(String separator)

public static String Day(String separator){

        String txt = new Data(Registro.day).DataAbreviada();
        txt += separator;
        txt += new Data(Registro.day).DataLinha(true);

        return txt;

    }//Day(String separator)

     public static String Host(String local){

            String txt = Registro.host;

            boolean barra = false;
            boolean space = false;
```

```java
for(int i = 0; i < local.length(); i++){

    char ds = local.charAt(i);

    switch(ds){

        case '/' ->{

            if(barra){

                txt += "/";

            } else {//if(barra)

                barra = true;

            }//if(barra)

        }//case '/'
```

```java
case '\\' ->{

    if(barra){

        txt += "/";

    } else {//if(barra)

        barra = true;

    }//if(barra)

}//case '\\'

case '|' ->{

    if(barra){

        txt += "/";

    } else {//if(barra)
```

```java
                barra = true;

            }//if(barra)

        }//case '|'

        case ' ' ->{

            if(space){

                txt += "+";
                space = false;

            }//if(space)

        }//case ' '

        default ->{

            txt += ds;
```

```java
                space = true;

            }//default

        }//switch(ds)

    }//for(int i = 0; i < local.length(); i++)

    return txt;

}//Host(String local)

public static String Title(String text){

    boolean ifo = false;

    String txt = "";

    String document_text[] = text.split(" ");

    List<String> document = new ArrayList<>();
```

```java
for(String ds : document_text){

    String table = ds.replaceAll("\'", "").replaceAll("\"", "");

    if(table.contains("/")){

        String inline[] = table.split("/");

        for(String ins : inline){

            if(!ins.isBlank()){

                document.add(ins);

            }//if(!ins.isBlank())

        }//for(String ins : inline)

    } else if(table.contains("&")){
```

```java
            String inline[] = table.split("&");

            for(String ins : inline){

                if(!ins.isBlank()){

                    document.add(ins);

                }//if(!ins.isBlank())

            }//for(String ins : inline)

        } else if(table.contains("-")){

            String inline[] = table.split("-");

            for(String ins : inline){

                if(!ins.isBlank()){

                    document.add(ins);
```

```
			}//if(!ins.isBlank())

		}//for(String ins : inline)

	} else if(table.contains("_")){

		String inline[] = table.split("_");

		for(String ins : inline){

			if(!ins.isBlank()){

				document.add(ins);

			}//if(!ins.isBlank())

		}//for(String ins : inline)

	} else if(table.contains("&")){
```

```java
				String inline[] = table.split("&");

			for(String ins : inline){

				if(!ins.isBlank()){

					document.add(ins);

				}//if(!ins.isBlank())

			}//for(String ins : inline)

		} else if(table.length() > 0){

			document.add(table);

		}//if(ds.length() > 0)

	}//for(String ds : document_text)

	for(int x = 0; x < document.size(); x++){
```

```
boolean select;

if(x == 0){

    select = true;

} else { //if(x == 0)

    txt += " ";

    switch(document.get(x).toLowerCase()){

        case "se":
        case "no":
        case "na":
        case "do":
        case "de":
        case "da":
        case "dos":
        case "das":
```

```java
            case "nós":
            case "nos":
            case "nas":
            case "aos":
            case "ao":
            case "os":
            case "as":
            case "ás":
            case "às":
            txt += document.get(x).toLowerCase();
            select = false;
            break;

            default:
            select = true;
            break;

        }//switch(document.get(x).toLowerCase())

    }//if(x == 0)
```

```
if(document.get(x).contains("[") || document.get(x).contains("(") || document.get(x).contains("{")){

    txt += "[";

    ifo = true;

}

//select == true;

if(ifo){

    String dote = "";

    for(int p = 0; p < document.get(x).length(); p++){

        switch(document.get(x).charAt(p)){

            case '[':
            case '(':
            case '{':
```

```java
                    case ']':
                    case ')':
                    case '}':
                    break;

                    default:
                    dote += document.get(x).charAt(p);
                    break;

                }

            }//for(int p = 0; p < document.get(x).length(); p++)

            txt += dote.toUpperCase();

        } else if(select){//if(ifo)

            switch(document.get(x).length()){

                case 1 ->{
```

```java
        if(x == 0){
            txt += document.get(x).toUpperCase();
        } else {
            txt += document.get(x).toLowerCase();
        }

    }//case 1

    default ->{

        for(int y = 0; y < document.get(x).length(); y++){

            String dg = document.get(x).charAt(y) + "";

            if(y == 0){
                txt += dg.toUpperCase();
            } else {
                txt += dg.toLowerCase();
            }

        }

    }//for(int i = 0; i < ds.length(); i++)
```

```java
            }//default

        }//switch(ds.length())

    }//for(String ds : document)

  }//if(select)

  if(ifo){
      txt += "]";
  }

  return txt;

}//Title(String text)

public static String Select(String text, String opc, int max){

    boolean word_null = true;
    int letter = 0;
```

```java
String txt = "";

String space[] = text.split(" ");

List<String> doc = new ArrayList<>();

for(String sp : space){if(sp.length() > 1){doc.add(sp);}}

for(int i = 0; i < doc.size(); i++){

    letter = letter + doc.get(i).length();

    if(i > 0){
        txt += " ";
    }

    if(letter <= max){

        txt += doc.get(i);
        word_null = false;
```

```java
    } else if(word_null){//if(letter <= max)

        int dig = max - letter;

        txt += doc.get(i).substring(0, dig);
        txt += "...";
        break;

    } else {//if(letter <= max)

        txt += "...";
        break;

    }//if(letter <= max)

}//for(int i = 0; i < doc.size(); i++)

if(text.trim().isBlank()){
    return opc.trim();
} else {
```

```java
            return txt;
        }

    }//Select(String text, String opc, int max)

    public static String Select(String text, int max){

        boolean word_null = true;
        int letter = 0;

        String txt = "";

        String space[] = text.split(" ");

        List<String> doc = new ArrayList<>();

        for(String sp : space){if(!sp.isBlank()){doc.add(sp);}}

        for(int i = 0; i < doc.size(); i++){

            letter = letter + doc.get(i).length();
```

```
if(letter <= max){

    if(i > 0){txt += " ";}

    txt += doc.get(i);
    word_null = false;

} else if(word_null){//if(letter <= max)

    int dig = max - letter;

    txt += doc.get(i).substring(0, dig);
    txt += "...";
    break;

} else {//if(letter <= max)

    txt += "...";
    break;
```
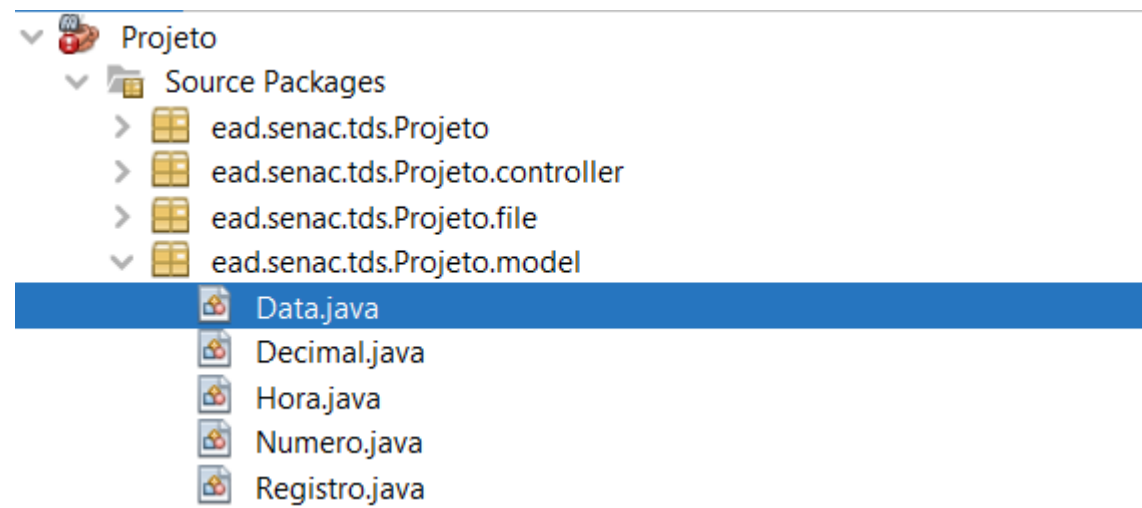
```
            }//if(letter <= max)

        }//for(int i = 0; i < doc.size(); i++)

        return txt;

    }//Select(String text, int max)

}
```

```java
package ead.senac.tds.Projeto.model;

import java.time.LocalDate;
import java.time.LocalTime;

/**
 *
 * @author josue
 */
public class Data {

    private LocalDate dia;
```

```java
private boolean hoje;
private String valid;

public Data(){

    this.dia = LocalDate.now();
    this.hoje = true;
    this.valid = "";

}//Data()

public Data(LocalDate data){

    this.dia = data;
    this.hoje = false;
    this.valid = "";

}//Data(LocalDate data)

public Data(String data){
```

```java
this.hoje = false;
this.valid = "";

int year = 0;
int month = 0;
int day = 0;

try{

    if(data.matches("[0-9]{2}[/][0-9]{2}[/][0-9]{4}")){

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

            int num;

            switch(data.charAt(i)){

                case '1':
                num = 1;
                break;
```

```
case '2':
num = 2;
break;

case '3':
num = 3;
break;

case '4':
num = 4;
break;

case '5':
num = 5;
break;

case '6':
num = 6;
break;

case '7':
```

```
            num = 7;
            break;


        case '8':
            num = 8;
            break;


        case '9':
            num = 9;
            break;


        default:
            num = 0;
            break;

    }//switch(data.charAt(i))

    switch(i+1){

        case 1:
            day = num;
```

```
        break;

    case 2:
    day = day*10 + num;
    break;

    case 4:
    month = num;
    break;

    case 5:
    month = month*10 + num;
    break;

    case 7:
    year = num;
    break;

    case 8:
    year = year*10 + num;
    break;
```

```java
                case 9:
                year = year*10 + num;
                break;

                case 10:
                year = year*10 + num;
                break;

        }//switch(i+1)

    }//for(int i = 0; i < 10; i++)

    this.dia = LocalDate.of(year, month, day);

} else if(data.matches("[0-9]{4}[-][0-9]{2}[-][0-9]{2}")){

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

        int num;
```

```
switch(data.charAt(i)){

    case '1':
    num = 1;
    break;

    case '2':
    num = 2;
    break;

    case '3':
    num = 3;
    break;

    case '4':
    num = 4;
    break;

    case '5':
    num = 5;
    break;
```

```
case '6':
num = 6;
break;

case '7':
num = 7;
break;

case '8':
num = 8;
break;

case '9':
num = 9;
break;

default:
num = 0;
break;
```

```
}//switch(data.charAt(i))

switch(i+1){

    case 1:
    year = num;
    break;


    case 2:
    year = year*10 + num;
    break;


    case 3:
    year = year*10 + num;
    break;


    case 4:
    year = year*10 + num;
    break;

    case 6:
```

```java
                month = num;
                break;

            case 7:
                month = month*10 + num;
                break;

            case 9:
                day = num;
                break;

            case 10:
                day = day*10 + num;
                break;

        }//switch(i+1)

    }//for(int i = 0; i < 10; i++)

    this.dia = LocalDate.of(year, month, day);
```

```java
        } else {

            this.dia = LocalDate.now();
            this.valid = "Data inválida!";

        }//if

    } catch(Exception e){

        this.dia = LocalDate.now();
        this.valid = e.getMessage();

    }

}//Date(String data)

public boolean Val(){
    return this.valid.isBlank();
}

public String Error(){
```

```java
        return this.valid;
    }

    public boolean Hoje(){
        return this.hoje;
    }

    public LocalDate getData(){

        return this.dia;

    }

    private String Event(){

        String txt = "";

        if(this.hoje){

            final String comp[] = {"Bom Dia", "Boa Tarde", "Boa Noite"};
```

```java
        if(LocalTime.now().getHour() < 12){
            txt = comp[0];
        } else if(LocalTime.now().getHour() < 18){
            txt = comp[1];
        } else if(LocalTime.now().getHour() > 18){
            txt = comp[2];
        } else if(LocalTime.now().getMinute() <= 30){
            txt = comp[1];
        } else {
            txt = comp[2];
        }

    }

    return txt;
}

public String DataAbreviada(){

    final String separator = "/";
```

```java
int a = this.dia.getYear();
int m = this.dia.getMonthValue();
int d = this.dia.getDayOfMonth();

String txt = "";

if(d < 10){
    txt += "0";
}

txt += d;
txt += separator;

if(m < 10){
    txt += "0";
}

txt += m;
txt += separator;
txt += a;
```

```
        return txt;

}//DataAbreviada()

public String DataCompleta(){

    int a = this.dia.getYear();
    int m = this.dia.getMonthValue();
    int d = this.dia.getDayOfMonth();
    int s = this.dia.getDayOfWeek().getValue();

    String txt = "";

    if(this.hoje){
        txt += Event();
        txt += ", hoje é ";
    }

    switch(s){

        case 1 ->{
```

```
        txt += "Segunda";
    }

    case 2 ->{
        txt += "Terça";
    }

    case 3 ->{
        txt += "Quarta";
    }

    case 4 ->{
        txt += "Quinta";
    }

    case 5 ->{
        txt += "Sexta";
    }

    case 6 ->{
        txt += "Sábado";
```

```java
    }

    case 7 ->{
        txt += "Domingo";
    }

}//switch(s)

if(s < 6){

    txt += "-feira";

}

txt += ", dia ";

txt += d;

if(d == 1){
    txt += "°";
}
```

```
txt += " de ";

switch(m){

    case 1 ->{
        txt += "Janeiro";
    }


    case 2 ->{
        txt += "Fevereiro";
    }


    case 3 ->{
        txt += "Março";
    }


    case 4 ->{
        txt += "Abril";
    }
```

```
        case 5 ->{
            txt += "Maio";
        }

        case 6 ->{
            txt += "Junho";
        }

        case 7 ->{
            txt += "Julho";
        }

        case 8 ->{
            txt += "Agosto";
        }

        case 9 ->{
            txt += "Setembro";
        }

        case 10 ->{
```

```
        txt += "Outubro";
    }

    case 11 ->{
        txt += "Novembro";
    }

    case 12 ->{
        txt += "Dezembro";
    }

}//switch(m)

txt += " de ";

txt += a;

if(this.hoje){
    txt += "!";
}
```

```java
        return txt;

    }//DataCompleta()

    public String DataLinha(boolean ifo){

        String txt = "";

        int dg = LocalDate.now().getDayOfYear();
        int dt = this.dia.getDayOfYear();

        int ag = LocalDate.now().getYear();
        int at = this.dia.getYear();

        if(ag - at == 1){//if

            if(ifo){
                txt += "ANO PASSADO";
            } else {
                txt += "ano passado";
            }
```

```
} else if(ag > at){//if

    int year = ag - at;

    if(!ifo){
        txt += "há ";
    }

    txt += year;

    if(ifo){
        txt += " ANOS ATRÁS";
    } else {
        txt += " anos atrás";
    }

} else if(dg == dt && ag >= at){//if

    if(ifo){
        txt += "HOJE";
```

```java
        } else {
            txt += "hoje";
        }

    } else if(dg - dt == 1 && ag >= at){//if

        if(ifo){
            txt += "ONTEM";
        } else {
            txt += "ontem";
        }

    } else if(dg - dt > 30 && ag >= at){//if

        int mes = LocalDate.now().getMonthValue() - this.dia.getMonthValue();

        if(mes == 0){

            if(ifo){
                txt += "ESTE MÊS";
            } else {
```

```
        txt += "este mês";
    }

} else if(mes == 1){//if(mes == O)

    if(ifo){
        txt += "MÊS PASSADO";
    } else {
        txt += "no mês passado";
    }

} else {//if(mes == O)

    if(!ifo){
        txt += "há ";
    }

    txt += mes;

    if(ifo){
        txt += " MESES ATRÁS";
```

```
        } else {
            txt += " meses atrás";
        }

    }//if(mes == 0)

} else if(dg > dt && ag >= at){//if

    int day = dg - dt;

    if(!ifo){
        txt += "há ";
    }

    txt += day;

    if(ifo){
        txt += " DIAS ATRÁS";
    } else {
        txt += " dias atrás";
    }
```

```java
    } else if(ifo){//if

        txt += "NO FUTURO";

    } else {//if

        txt += "no futuro";

    }//if

    return txt;

}//DataLinha(String start, String end)

public String Load(){

    final char sep = '-';

    String txt = "";
```

```java
int a = this.dia.getYear();
int m = this.dia.getMonthValue();
int d = this.dia.getDayOfMonth();

txt += a;
txt += sep;

if(m < 10){
    txt += "0";
}

txt += m;
txt += sep;

if(d < 10){
    txt += "0";
}

txt += d;

return txt;
```
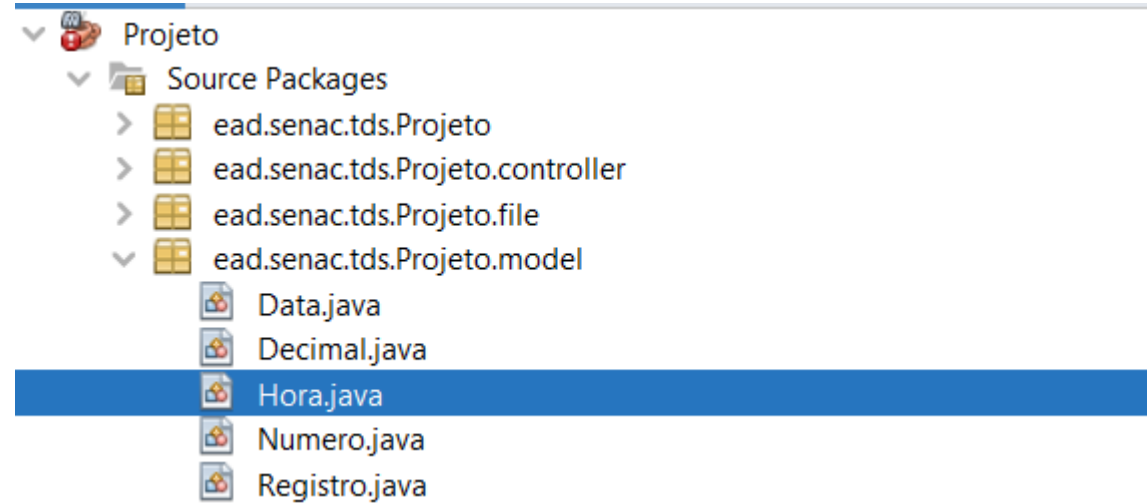
}

}

```java
package ead.senac.tds.Projeto.model;

import java.time.LocalTime;

/**
 *
 * @author josue
 */
public class Hora {

    private LocalTime hora;
    private String error;
```

```java
public Hora(){
    this.hora = LocalTime.of(0, 0, 0);
}

public Hora(LocalTime hora){
    this.hora = hora;
}

public Hora(String time){

    String tema = "";

    int hour = 0;
    int minute = 0;
    int second = 0;

    try{
        if(time.matches("[0-9]{1}[-][0-9]{2}[-][0-9]{2}") || time.matches("[0-9]{1}[:][0-9]{2}[:][0-9]{2}")){

            for(int i = 0; i < 8; i++){
```

```java
int num;

switch(time.charAt(i)){

    case '1':
    num = 1;
    break;

    case '2':
    num = 2;
    break;

    case '3':
    num = 3;
    break;

    case '4':
    num = 4;
    break;
```

```
        case '5':
        num = 5;
        break;

        case '6':
        num = 6;
        break;

        case '7':
        num = 7;
        break;

        case '8':
        num = 8;
        break;

        case '9':
        num = 9;
        break;

        default:
```

```
        num = 0;
        break;

}//switch(time.charAt(i))

switch(i+1){

    case 1:
    hour = num;
    break;

    case 3:
    minute = num;
    break;

    case 4:
    minute = minute*10 + num;
    break;

    case 6:
    second = num;
```

```java
                break;

            case 7:
            second = second*10 + num;
            break;

        }//switch(i+1)

    }//for(int i = 0; i < 8; i++)

    this.hora = LocalTime.of(hour, minute, second);

} else if(time.matches("[0-9]{1}[:][0-9]{2}") || time.matches("[0-9]{1}[-][0-9]{2}")){

    for(int i = 0; i < 5; i++){

        int num;

        switch(time.charAt(i)){

            case '1':
```

```
        num = 1;
        break;

    case '2':
        num = 2;
        break;

    case '3':
        num = 3;

    case '4':
        num = 4;
        break;

    case '5':
        num = 5;
        break;

    case '6':
        num = 6;
        break;
```

```
        case '7':
        num = 7;
        break;

        case '8':
        num = 8;
        break;

        case '9':
        num = 9;
        break;

        default:
        num = 0;
        break;

    }//switch(time.charAt(i))

switch(i+1){
```

```java
            case 1:
            hour = num;
            break;


            case 3:
            minute = num;
            break;


            case 4:
            minute = minute*10 + num;
            break;

        }//switch(i+1)

    }//for(int i = 0; i < 8; i++)

    this.hora = LocalTime.of(hour, minute, 0);

} else if(time.matches("[0-9]{2}[-][0-9]{2}[-][0-9]{2}") || time.matches("[0-9]{2}[:][0-9]{2}[:][0-9]{2}")){

    for(int i = 0; i < 8; i++){
```

```
int num;

switch(time.charAt(i)){

    case '1':
    num = 1;
    break;

    case '2':
    num = 2;
    break;

    case '3':
    num = 3;
    break;

    case '4':
    num = 4;
    break;
```

```
        case '5':
        num = 5;
        break;

        case '6':
        num = 6;
        break;

        case '7':
        num = 7;
        break;

        case '8':
        num = 8;
        break;

        case '9':
        num = 9;
        break;

        default:
```

```java
        num = 0;
        break;

}//switch(time.charAt(i))

switch(i+1){

    case 1:
    hour = num;
    break;

    case 2:
    hour = hour*10 + num;
    break;

    case 4:
    minute = num;
    break;

    case 5:
    minute = minute*10 + num;
```

```java
                break;

            case 7:
            second = num;
            break;

            case 8:
            second = second*10 + num;
            break;

        }//switch(i+1)

    }//for(int i = 0; i < 8; i++)

    this.hora = LocalTime.of(hour, minute, second);

} else if(time.matches("[0-9]{2}[-][0-9]{2}") || time.matches("[0-9]{2}[:][0-9]{2}")){

    for(int i = 0; i < 5; i++){

        int num;
```

```
switch(time.charAt(i)){

    case '1':
    num = 1;
    break;

    case '2':
    num = 2;
    break;

    case '3':
    num = 3;

    case '4':
    num = 4;
    break;

    case '5':
    num = 5;
    break;
```

```
case '6':
num = 6;
break;

case '7':
num = 7;
break;

case '8':
num = 8;
break;

case '9':
num = 9;
break;

default:
num = 0;
break;
```

```
}//switch(time.charAt(i))

switch(i+1){

    case 1:
    hour = num;
    break;


    case 2:
    hour = hour*10 + num;
    break;


    case 4:
    minute = num;
    break;


    case 5:
    minute = minute*10 + num;
    break;

}//switch(i+1)
```

```java
        }//for(int i = 0; i < 8; i++)

            this.hora = LocalTime.of(hour, minute, 0);

        } else {

            this.hora = LocalTime.of(0,0,0);
            tema = "Hora inválida!";

        }

}catch(Exception e){

    this.hora = LocalTime.of(0,0,0);
    tema = e.getMessage();

}

this.error = tema;
```

```java
}//outTime(String txt)

public String Err(){
    return this.error;
}


public boolean Val(){
    return this.error.isBlank();
}


public LocalTime getHora(){
    return this.hora;
}

public String getHora(boolean second){

    final String sep = ":";

    String txt = "";

    int h = this.hora.getHour();
```

```java
int m = this.hora.getMinute();

if(h < 10){
    txt += "0";
}

txt += h;
txt += sep;

if(m < 10){
    txt += "0";
}

txt += m;

if(second){

    int s = this.hora.getSecond();

    txt += sep;
```

```java
            if(s < 10){
                txt += "0";
            }

            txt += s;

        }

        return txt;

    }//Hora()

    public String Load(){

        final char sep = '-';

        int h = this.hora.getHour();
        int m = this.hora.getMinute();
        int s = this.hora.getSecond();

        String txt = "";
```

```
if(h < 10){
    txt += "0";
}

txt += h;
txt += sep;

if(m < 10){
    txt += "0";
}

txt += m;
txt += sep;

if(s < 10){
    txt += "0";
}

txt += s;
```
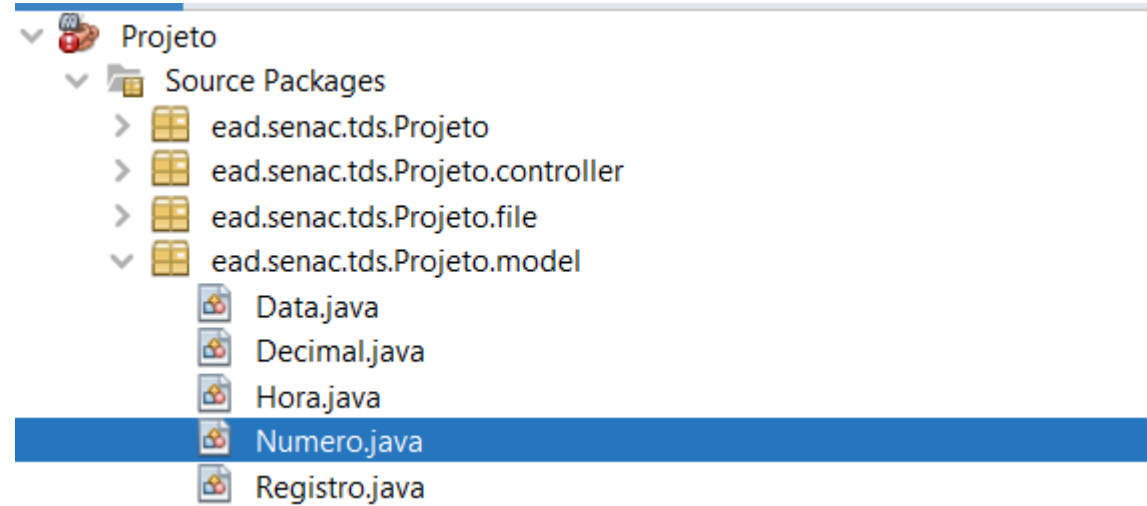
```
        return txt;

    }

}
```

```java
package ead.senac.tds.Projeto.model;

/**
 *
 * @author josue
 */
public class Numero {

    private int num;
    private boolean valid;

    public Numero(String txt){
```

```
int numb = 0;
this.valid = true;

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

    switch(txt.charAt(i)){

        case '1':
        numb = numb*10 + 1;
        break;

        case '2':
        numb = numb*10 + 2;
        break;

        case '3':
        numb = numb*10 + 3;
        break;

        case '4':
```

```
                numb = numb*10 + 4;
                break;

        case '5':
                numb = numb*10 + 5;
                break;

        case '6':
                numb = numb*10 + 6;
                break;

        case '7':
                numb = numb*10 + 7;
                break;

        case '8':
                numb = numb*10 + 8;
                break;

        case '9':
                numb = numb*10 + 9;
```

```java
                break;

            case 'O':
            numb = numb*10;
            break;

            default:
            this.valid = false;
            break;

        }//switch(txt.charAt(i))

    }//for(int i = 0; i < txt.length(); i ++)

    this.num = numb;

}//Numero(String txt)

public int Num(){
    return this.num;
}
```
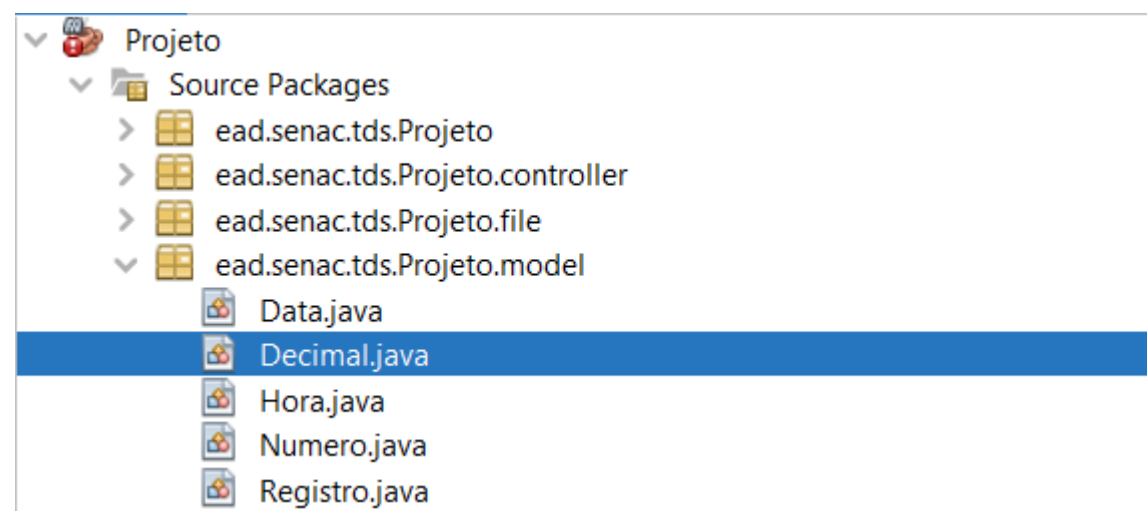
```java
public boolean Val(){
    return this.valid;
}

}
```

```java
package ead.senac.tds.Projeto.model;

/**
 *
 * @author josue
 */
public class Decimal {

    private Float decimal;
    private boolean valid;

    public Decimal(String txt){

        boolean val = true;
```

```java
float numb = 0.0f;

boolean sep = true;
int d1 = 0;
int d2 = 0;

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

    switch(txt.charAt(i)){

        case '1':
        numb = numb*10f + 1f;
        break;

        case '2':
        numb = numb*10f + 2f;
        break;

        case '3':
        numb = numb*10f + 3f;
        break;

        case '4':
        numb = numb*10f + 4f;
```

```
            break;

        case '5':
        numb = numb*10f + 5f;
        break;

        case '6':
        numb = numb*10f + 6f;
        break;

        case '7':
        numb = numb*10f + 7f;
        break;

        case '8':
        numb = numb*10f + 8f;
        break;

        case '9':
        numb = numb*10f + 9f;
        break;

        case '0':
        numb = numb*10f;
```

```
        break;

    case ',':
    case '.':
    if(sep){
        d1 = i;
        sep = false;
    } else {
        val = false;
    }
    break;

    default:
    val = false;
    break;

}//switch - 1/2

if(d1 > 0){

    switch(txt.charAt(i)){

        case '1':
        case '2':
```

```
                case '3':
                case '4':
                case '5':
                case '6':
                case '7':
                case '8':
                case '9':
                d2 = i;
                break;

            }//switch - 2/2

        }//if(d1 > 0)

    }//for(int i = 0; i < txt.length(); i++)

if(d1 < d2){

    for(int i = d1; i < d2;i++){

        numb = numb/10;

    }

}//if(d1 < d2)
```

```java
        this.decimal = numb;

        this.valid = val;

    }//Decimal(String txt)

    public boolean Val(){
        return this.valid;
    }

    public Float Dec(){
        return this.decimal;
    }

    public Float Dec(int dec){

        Float div = 1f;

        if(dec <= 1){
            div = 10f;
        } else {
            div = dec*10f;
        }
```
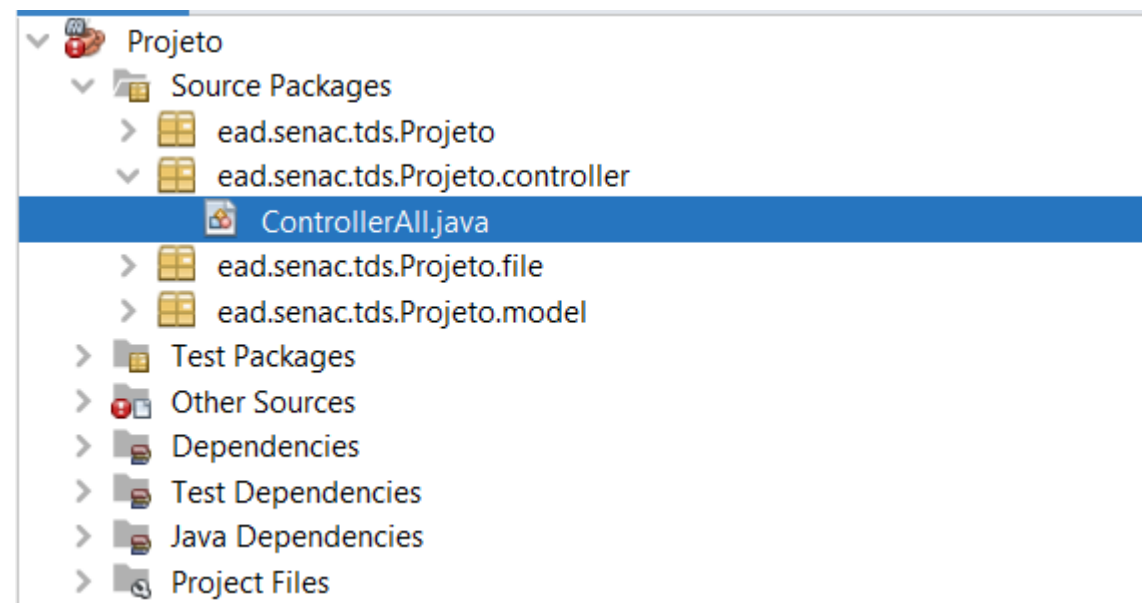
```
        int numb = Math.round(this.decimal*div);

        return (float)numb /div;

    }

}
```

```java
package ead.senac.tds.Projeto.controller;

import ead.senac.tds.Projeto.model.Data;
import org.springframework.ui.Model;
import org.springframework.stereotype.Controller;
import org.springframework.web.bind.annotation.GetMapping;

/**
 *
 * @author josue
 */
```

```java
@Controller
public class ControllerAll {

    @GetMapping("/index")
    public String Index(Model model){

        model.addAttribute("title", new Data().DataAbreviada());

        model.addAttribute("top", new Data().DataCompleta());

        return "index";

    }//Index(Model model)

    @GetMapping("/")
    public String RedirectIndex(){

        return "redirect:/index";

    }//Index(Model model)

}
```

```
Projeto
    Source Packages
    Test Packages
    Other Sources
        src/main/resources
            <default package>
            static.bootstrap
                bootstrap.css
                bootstrap.js
            static.internal
                select.css
            templates
                index.html
```
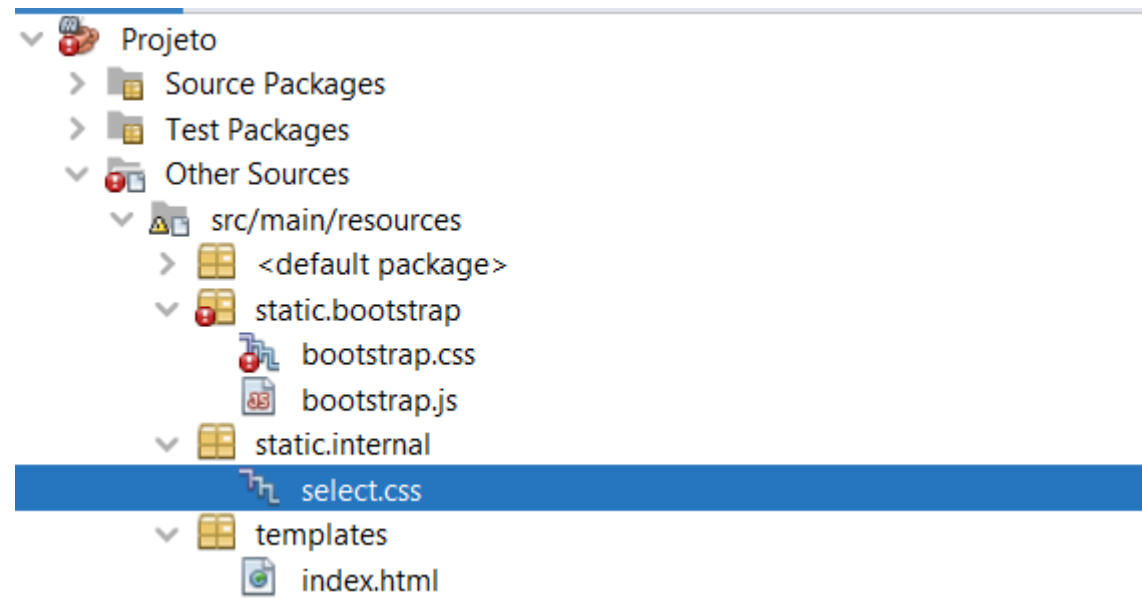
```css
*::selection{
    color: white;
    background-color: black;
}
```

```
Projeto
  > Source Packages
  > Test Packages
  v Other Sources
    v src/main/resources
      > <default package>
      > static.bootstrap
      v static.internal
            select.css
            select_form.js
      > templates
```
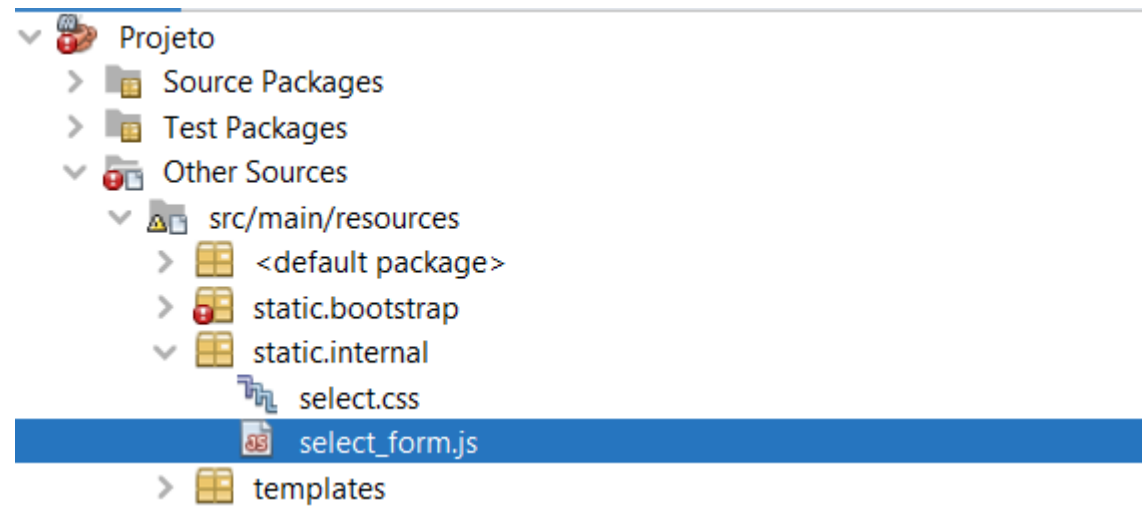
```javascript
document.getElementsByTagName("html")[0].addEventListener("click", function(){
    console.clear();
});

function Text(ds){

    let txt = "";

    var action = true;
    var space = true;
    var letter = false;

    for(var i = 0; i < ds.length; i++){
```

```
switch(ds[i]){

    case '\\':
    case '/':
    case '|':
    case '[':
    case '{':
    case '(':
    case '=':
    if(action && letter && i < ds.length-2){
        txt += " [";
        action = false;
    } else {
        txt += " ";
    }
    space = false;
    break;

    case '+':
    case '-':
    case '_':
    case ' ':
```

```
        if(space){
            txt += " ";
            space = false;
        }
        break;

        default:
        txt += ds[i];
        letter = true;
        space = true;
        break;

      }

    }

    return txt;

}//Text(ds)

function Submit(){

    const x = document.forms["frm"];
```

```
for (let i = 0; i < x.length ;i++) {

    switch(x.elements[i].type.toLowerCase()){

        case "text":
            x.elements[i].value = Text(x.elements[i].value);
        break;


    }

  }

}//Submit()

document.getElementById("frm").addEventListener("submit",Submit);
```
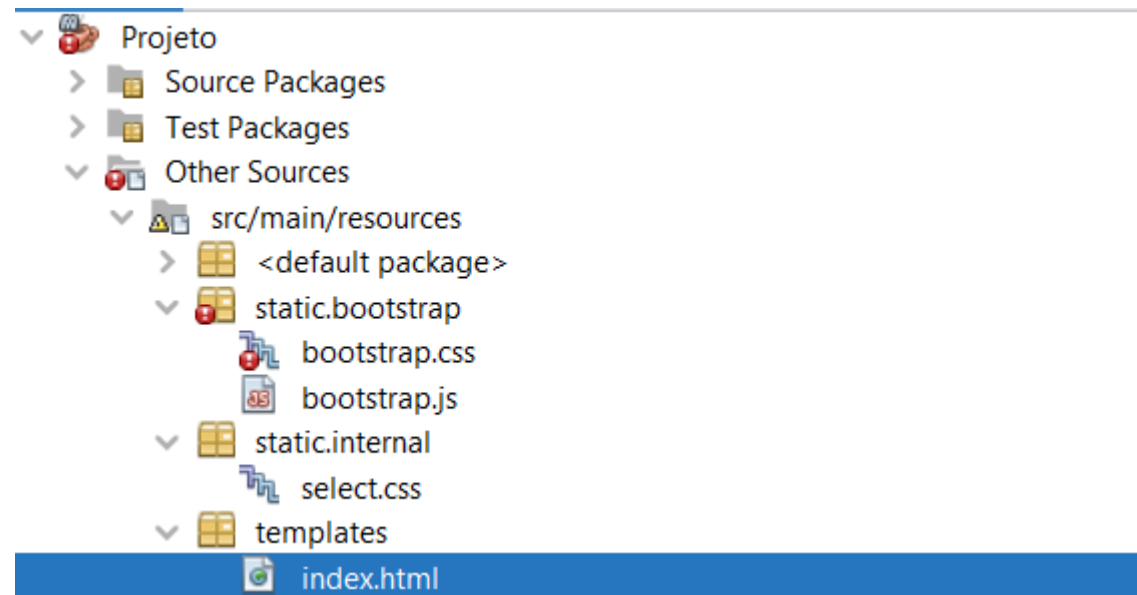
```html
<html>
    <head>
        <title th:text="${title}" />
        <meta charset="UTF-8">
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <link rel="stylesheet" th:href="@{/bootstrap/bootstrap.css}">
        <link rel="stylesheet" th:href="@{/internal/select.css}">
    </head>

    <body>

        <!-- divtopclass -- div top class -->
```

```html
    <div class="container-fluid bg-primary-subtle mb-5 py-4 d-print-none">
        <p th:text="${top}" class="text-primary-emphasis text-center fw-bold" style="font-size:3vw" />
    </div><!-- div -- Topo -->


    <script th:src="@{/bootstrap/bootstrap.js}"></script>

  </body>

</html>
```
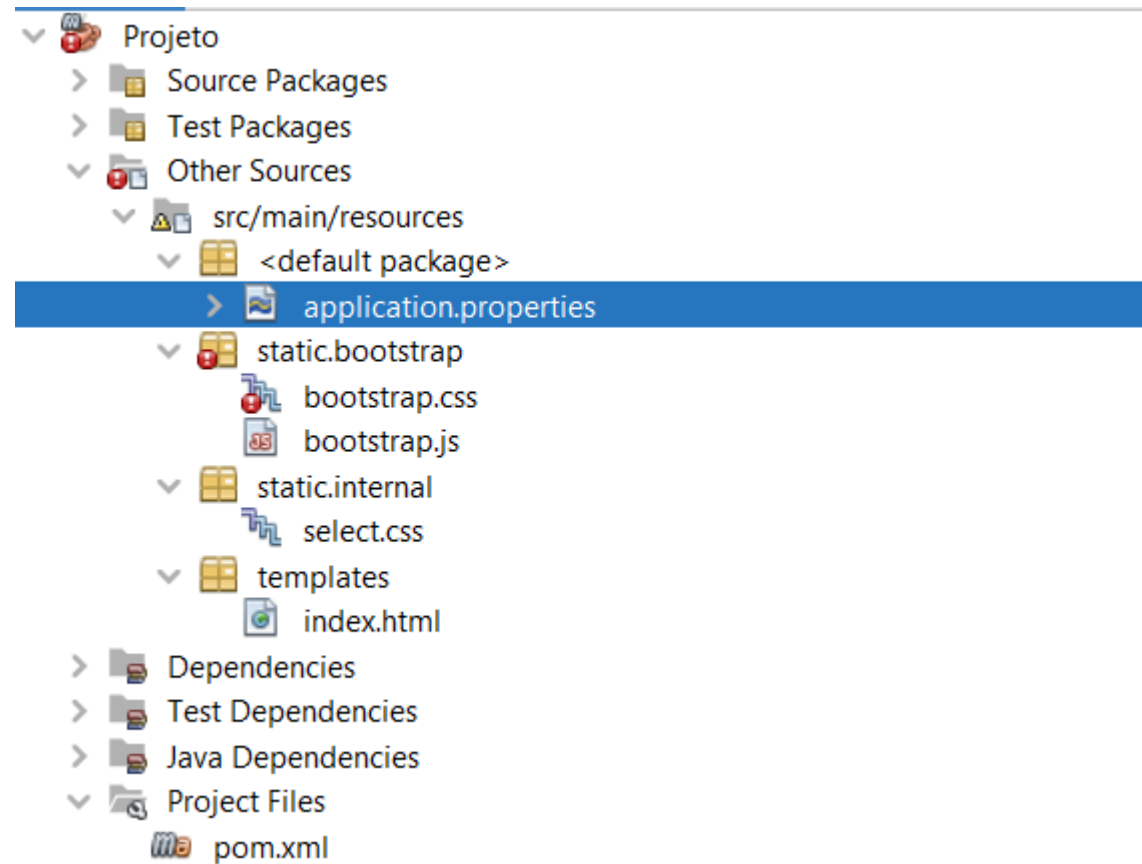
```
Projeto
  Source Packages
  Test Packages
  Other Sources
    src/main/resources
      <default package>
        application.properties
      static.bootstrap
        bootstrap.css
        bootstrap.js
      static.internal
        select.css
      templates
        index.html
  Dependencies
  Test Dependencies
  Java Dependencies
  Project Files
    pom.xml
```

spring.application.name=ProjetoIntegrador
spring.datasource.url=jdbc:mysql://localhost:3306/videoteca
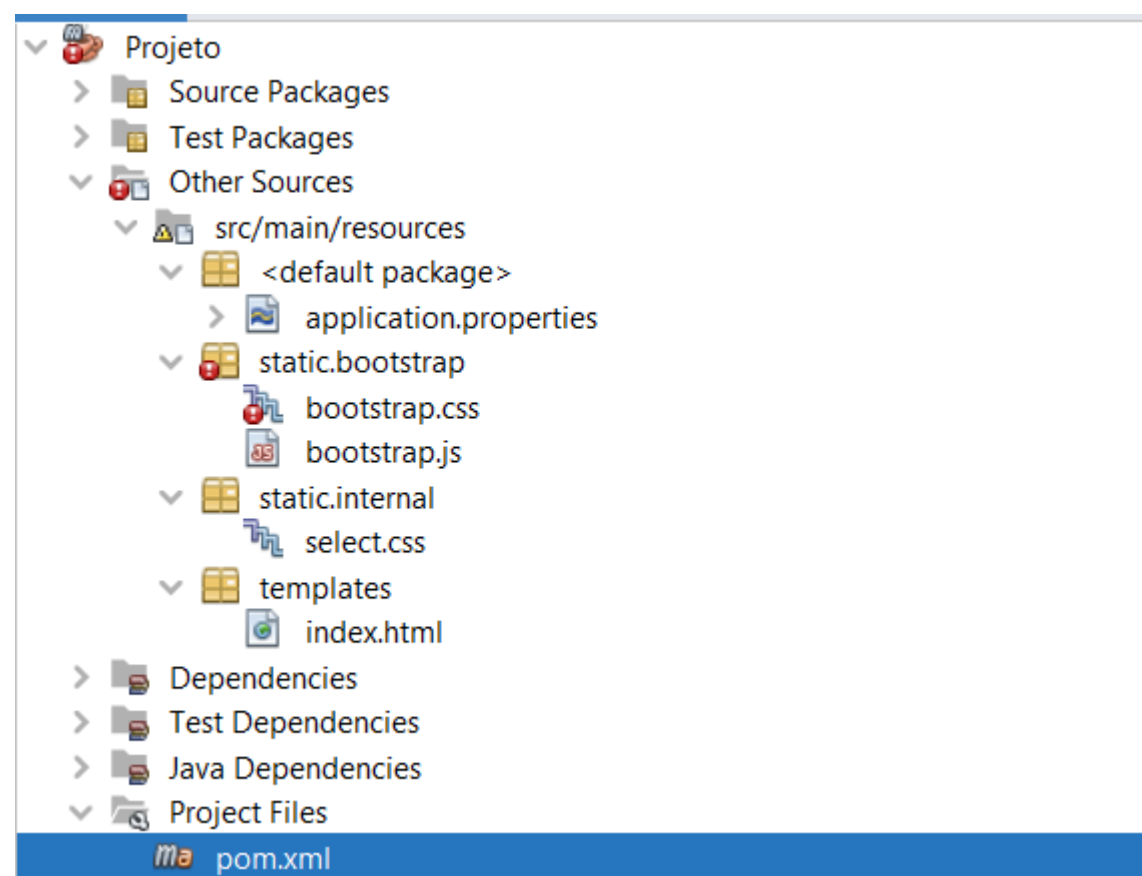**spring.datasource.username=aula**
spring.datasource.password=660009929
server.port=8080
spring.jpa.properties.hibernate.dialect=org.hibernate.dialect.MySQLDialect
spring.jpa.hibernate.ddl-auto=update
server.error.include-message = Always

```
Projeto
  Source Packages
  Test Packages
  Other Sources
    src/main/resources
      <default package>
        application.properties
      static.bootstrap
        bootstrap.css
        bootstrap.js
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        select.css
      templates
        index.html
  Dependencies
  Test Dependencies
  Java Dependencies
  Project Files
    pom.xml
```

<?xml version="1.0" encoding="UTF-8"?>

<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 https://maven.apache.org/xsd/maven-4.0.0.xsd">

<modelVersion>4.0.0</modelVersion>

<parent>

<groupId>org.springframework.boot</groupId>

```xml
<artifactId>spring-boot-starter-parent</artifactId>
<version>3.3.5</version>
<relativePath/> <!-- lookup parent from repository -->
</parent>
<groupId>ead.senac.tds</groupId>
<artifactId>ProjetoIntegrador</artifactId>
<version>0.0.1-SNAPSHOT</version>
<name>Projeto</name>
<description>Projeto Integrador Assistente de desenvolvimento de sistemas</description>
<url/>
<licenses>
<license/>
</licenses>
<developers>
<developer/>
</developers>
<scm>
<connection/>
```

```xml
<developerConnection/>
<tag/>
<url/>
</scm>
<properties>
<java.version>17</java.version>
</properties>
<dependencies>
<dependency>
<groupId>org.springframework.boot</groupId>
<artifactId>spring-boot-starter-thymeleaf</artifactId>
</dependency>
<dependency>
<groupId>org.springframework.boot</groupId>
<artifactId>spring-boot-starter-web</artifactId>
</dependency>

<dependency>
```

```xml
<groupId>org.projectlombok</groupId>
<artifactId>lombok</artifactId>
<optional>true</optional>
</dependency>
<dependency>
<groupId>org.springframework.boot</groupId>
<artifactId>spring-boot-starter-test</artifactId>
<scope>test</scope>
</dependency>
</dependencies>

<build>
<plugins>
<plugin>
<groupId>org.springframework.boot</groupId>
<artifactId>spring-boot-maven-plugin</artifactId>
<configuration>
<excludes>
```

```xml
<exclude>
<groupId>org.projectlombok</groupId>
<artifactId>lombok</artifactId>
</exclude>
</excludes>
</configuration>
</plugin>
</plugins>
</build>

</project>
```