



Laboratorio 08 Gestión Académico con el Framework Django en Python (Modelo – Plantilla – Vista)

Instalar Python

https://www.python.org/downloads/windows/

python-3.11.4-amd64.exe

Activar Add Python.exe to PATH – Customize installation – Install for all users

WIN + R - cmd - ENTER

C:\Users\Lenin>**py --version**Python 3.11.4

Instalar Django 4.2.3

C:\Users\Lenin>py -m venv mientorno

C:\Users\Lenin>mientorno\Scripts\activate.bat

(mientorno) C:\Users\Lenin>py -m pip install django==4.2.3

Collecting django==4.2.3

Downloading Django-4.2.3-py3-none-any.whl (8.0 MB)

------ 8.0/8.0 MB 2.8 MB/s eta 0:00:00

Collecting asgiref<4,>=3.6.0 (from django==4.2.3)

Downloading asgiref-3.7.2-py3-none-any.whl (24 kB)

Collecting sqlparse>=0.3.1 (from django==4.2.3)

Downloading sqlparse-0.4.4-py3-none-any.whl (41 kB)

------ 41.2/41.2 kB 132.2 kB/s eta 0:00:00

Collecting tzdata (from django==4.2.3)

Downloading tzdata-2023.3-py2.py3-none-any.whl (341 kB)

----- 341.8/341.8 kB 3.5 MB/s eta 0:00:00

Installing collected packages: tzdata, sqlparse, asgiref, django

Successfully installed asgiref-3.7.2 django-4.2.3 sqlparse-0.4.4 tzdata-2023.3

(mientorno) C:\Users\Lenin>django-admin --version 4.2.3

Instalar PyCharm community

https://www.jetbrains.com/pycharm/download/#section=windows

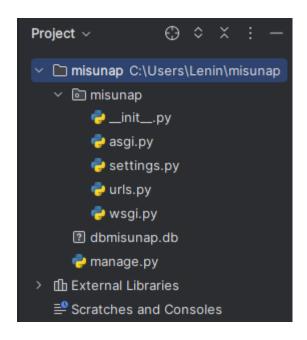
1. Creando un **Proyecto** en Django con el nombre **misunap**

(mientorno) C:\Users\Lenin>django-admin startproject misunap

Exactamente como se muestra en la figura siguiente:



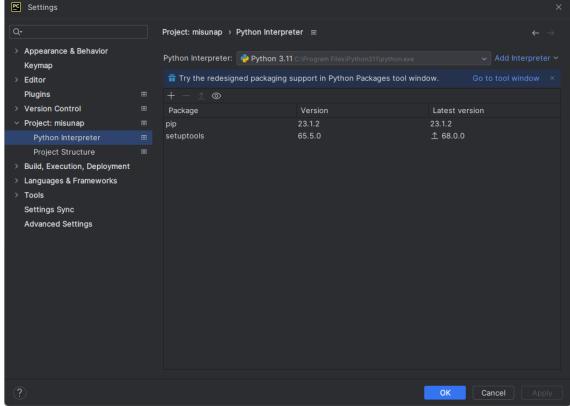
Abrimos la carpeta del Proyecto en **JetBrains PyCharm Community** (Abrir la carpeta **misunap** C:\Users\Lenin**misunap**)



Verificamos si el intérprete está apuntando al Proyecto.

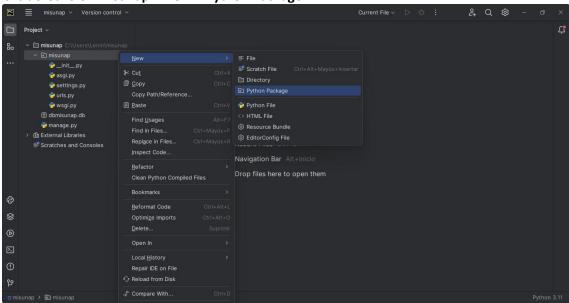
File - Settings - Project: misunap - Project interpreter



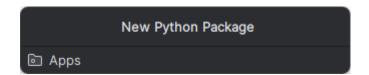


Creamos una carpeta denominada Apps

Clic derecho en misunap - New - Python Package



Nos mostrará el cuadro de diálogo New Package - Apps - ENTER





WIN + R -> cmd -> ENTER (En la consola realizamos lo siguiente)

(mientorno) C:\Users\Lenin>django-admin startproject misunap

(mientorno) C:\Users\Lenin>cd misunap

(mientorno) C:\Users\Lenin\misunap>cd misunap

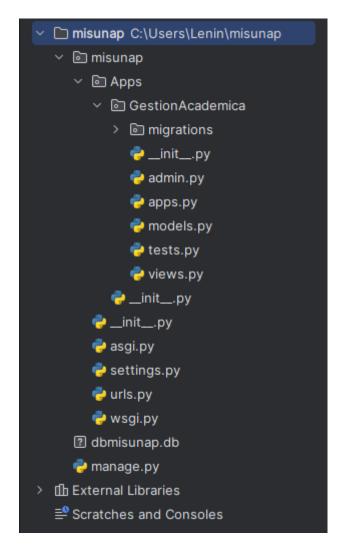
(mientorno) C:\Users\Lenin\misunap\misunap>cd Apps

(mientorno) C:\Users\Lenin\misunap\misunap\Apps>django-admin startapp

GestionAcademica

(mientorno) C:\Users\Lenin\misunap\misunap\Apps>cd..

(mientorno) C:\Users\Lenin\misunap\misunap>cd ..



settings.py

```
DATABASES = {
    'default': {
        'ENGINE': 'django.db.backends.sqlite3',
        'NAME': 'dbmisunap.db',
    }
}
```

...





LANGUAGE CODE = 'es-pe'

models.py

```
from django.db import models
# Create your models here.
class Alumno(models.Model):
    ApellidoPaterno = models.CharField(max length=35)
    ApellidoMaterno = models.CharField(max length=35)
    Nombres = models.CharField(max length=35)
    DNI = models.CharField(max length=8)
    FechaNacimiento = models.DateField()
    SEXOS = (('F', 'Femenino'), ('M', 'Masculino'))
    Sexo = models.CharField(max length=1, choices=SEXOS,
        return cadena.format(self.ApellidoPaterno,
self.ApellidoMaterno, self.Nombres)
        return self.NombreCompleto()
    Nombre = models.CharField(max length=50)
    Creditos = models.PositiveSmallIntegerField()
    Estado = models.BooleanField(default=True)
        return "{0} ({1})".format(self.Nombre,
self.Creditos)
class Matriculas(models.Model):
    Alumno = models.ForeignKey(Alumno, null=False,
olank=False, on delete=models.CASCADE)
    Curso = models.ForeignKey(Curso, null=False,
olank=False, on delete=models.CASCADE)
    FechaMatricula =
models.DateTimeField(auto now add=True)
        cadena = "{0} => {1}"
        return cadena.format(self.Alumno,
self.Curso.Nombre)
```

Migración de los modelos a la base de datos

settings.py





```
INSTALLED APPS =
    'django.contrib.contenttypes',
```

apps.py

```
from django.apps import AppConfig
class GestionAcademicaConfig(AppConfig):
   default auto field = 'django.db.models.BigAutoField'
```

WIN + R -> cmd -> ENTER

Nos ubicamos donde está el archivo manage.py

Microsoft Windows [Versión 10.0.17763.107] (c) 2018 Microsoft Corporation. Todos los derechos reservados.

(mientorno) C:\Users\Lenin>cd misunap (mientorno) C:\Users\Lenin\misunap>dir/p El volumen de la unidad C no tiene etiqueta. El número de serie del volumen es: 34C5-38A1

Directorio de C:\Users\Lenin\misunap

05/07/2023 09:41 <DIR> 04/07/2023 22:46 <DIR> 05/07/2023 09:57 <DIR> .idea 04/07/2023 17:24 685 manage.py 05/07/2023 10:15 <DIR> misunap 1 archivos 685 bytes 4 dirs 29,440,802,816 bytes libres

(mientorno) C:\Users\Lenin\misunap>python manage.py migrate

Operations to perform:

Apply all migrations: admin, auth, contenttypes, sessions Running migrations:

Applying contenttypes.0001_initial... OK

Applying auth.0001_initial... OK

Applying admin.0001_initial... OK

Applying admin.0002_logentry_remove_auto_add... OK

Applying admin.0003_logentry_add_action_flag_choices... OK



Applying contenttypes.0002_remove_content_type_name... OK
Applying auth.0002_alter_permission_name_max_length... OK
Applying auth.0003_alter_user_email_max_length... OK
Applying auth.0004_alter_user_username_opts... OK
Applying auth.0005_alter_user_last_login_null... OK
Applying auth.0006_require_contenttypes_0002... OK
Applying auth.0007_alter_validators_add_error_messages... OK
Applying auth.0008_alter_user_username_max_length... OK
Applying auth.0009_alter_user_last_name_max_length... OK
Applying auth.0010_alter_group_name_max_length... OK
Applying auth.0011_update_proxy_permissions... OK
Applying sessions.0001_initial... OK

(mientorno) C:\Users\Lenin\misunap>

Realizar la migración interna

(mientorno) C:\Users\Lenin\misunap>**python manage.py makemigrations** Migrations for 'GestionAcademica':

 $misunap \verb|\Apps| Gestion Academica \verb|\migrations| 0001_initial.py|$

- Create model Alumno
- Create model Curso
- Create model Matriculas

Comprobar la migración interna

(mientorno) C:\Users\Lenin\misunap>**python manage.py migrate** Operations to perform:

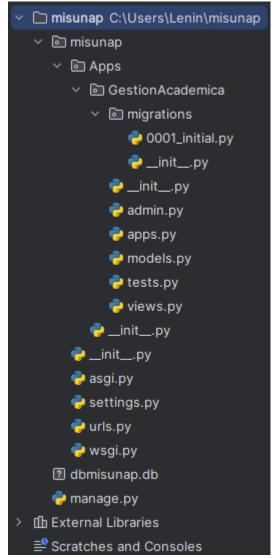
Apply all migrations: GestionAcademica, admin, auth, contenttypes, sessions Running migrations:

Applying GestionAcademica.0001_initial... OK

(mientorno) C:\Users\Lenin\misunap>







Crear un super usuario, el password debe ser igual o más de 8 caracteres

(mientorno) C:\Users\Lenin\misunap>python manage.py createsuperuser Nombre de usuario (leave blank to use 'lenin'): **Sistemas** Dirección de correo electrónico: lhuaytaf@gmail.com

Password: unap1234

Password (again): **unap1234** Superuser created successfully.

(mientorno) C:\Users\Lenin\misunap>

Para desplegar la aplicación web debemos ingresar al Servidor embebido de Django

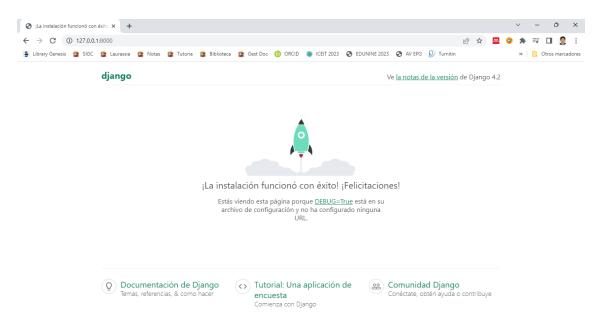
(mientorno) C:\Users\Lenin\misunap>python manage.py runserver Watching for file changes with StatReloader Performing system checks...

System check identified no issues (0 silenced). July 05, 2023 - 10:43:06 Django version 4.2.3, using settings 'misunap.settings'



Starting development server at http://127.0.0.1:8000/Quit the server with CTRL-BREAK.

Nuestro servidor ha iniciado en el **localhost puerto 8000**, ingresamos a un navegador **Google Chrome**



[05/Jul/2023 10:43:33] "GET / HTTP/1.1" 200 10716 Not Found: /favicon.ico [05/Jul/2023 10:43:38] "GET /favicon.ico HTTP/1.1" 404 2111

Detenemos el servidor con CTRL + C

admin.py

```
from django.contrib import admin
from misunap.Apps.GestionAcademica.models import *
# Register your models here.

admin.site.register(Alumno)
admin.site.register(Curso)
admin.site.register(Matriculas)
```

Iniciar nuevamente el servidor

WIN + R -> cmd -> ENTER

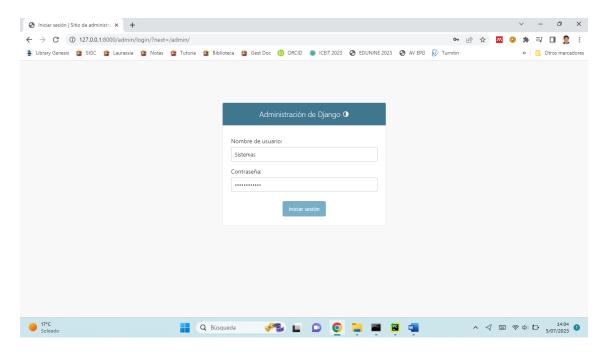
(mientorno) C:\Users\Lenin\misunap>python manage.py runserver Watching for file changes with StatReloader Performing system checks...

System check identified no issues (0 silenced). July 05, 2023 - 14:02:54 Django version 4.2.3, using settings 'misunap.settings' Starting development server at http://127.0.0.1:8000/

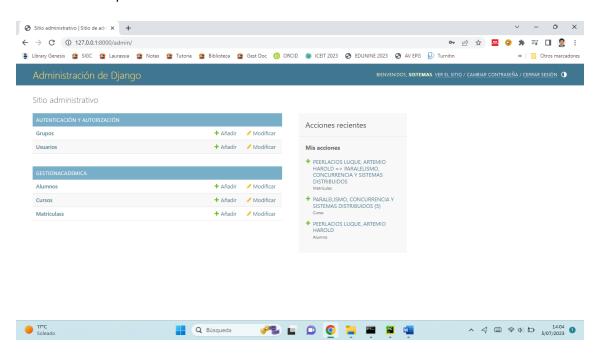


Quit the server with CTRL-BREAK.

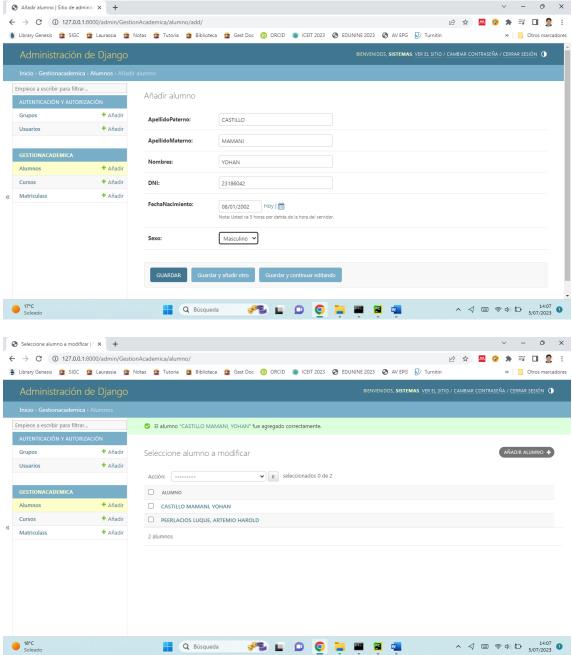
Ingresamos en el navegador a 127.0.0.1:8000/admin



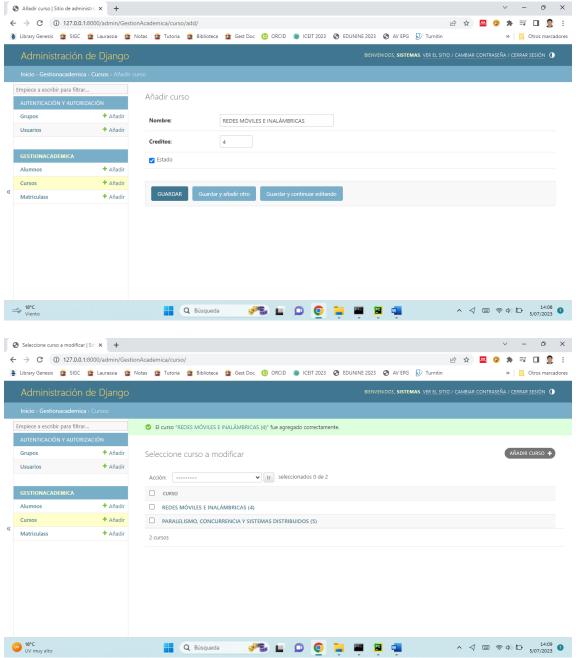
Nombre de usuario: Sistemas Contraseña: unap1234





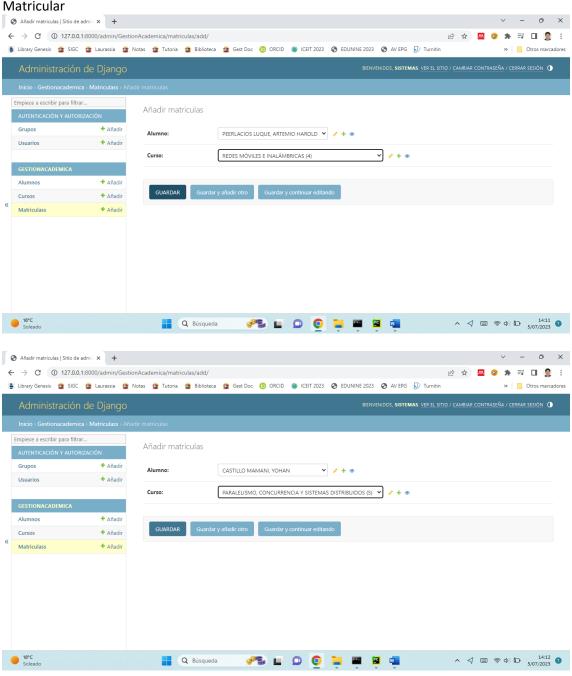




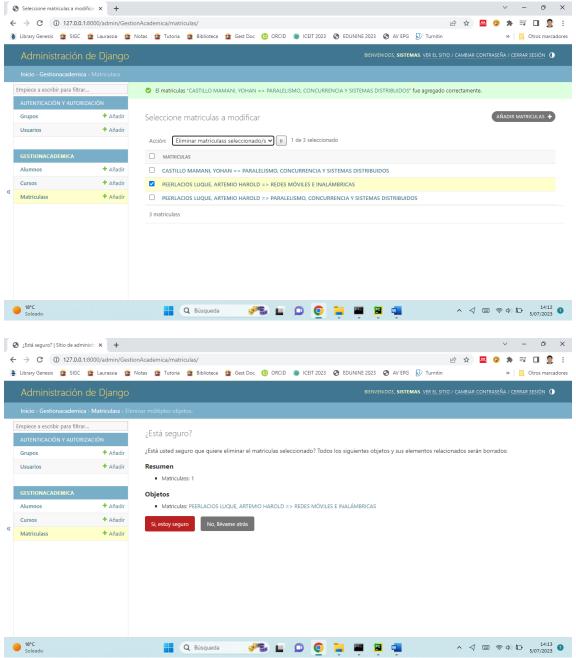




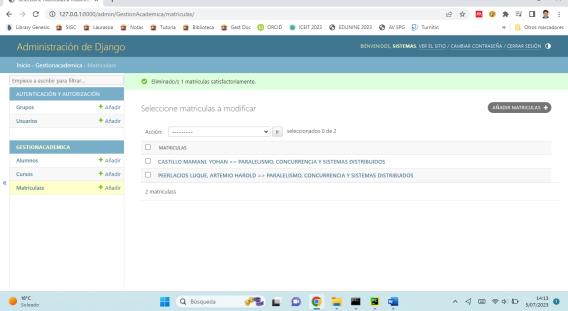












Cerrar sesión





Detenemos el servidor con CTRL + C

[05/Jul/2023 14:03:18] "GET /admin/GestionAcademica/ HTTP/1.1" 200 6172 [05/Jul/2023 14:03:18] "GET /static/admin/css/base.css HTTP/1.1" 304 0 [05/Jul/2023 14:03:18] "GET /static/admin/css/dark_mode.css HTTP/1.1" 304 0 [05/Jul/2023 14:03:18] "GET /static/admin/css/nav_sidebar.css HTTP/1.1" 304 0 [05/Jul/2023 14:03:18] "GET /static/admin/css/dashboard.css HTTP/1.1" 304 0 [05/Jul/2023 14:03:18] "GET /static/admin/css/responsive.css HTTP/1.1" 304 0 [05/Jul/2023 14:03:18] "GET /static/admin/js/theme.js HTTP/1.1" 304 0 [05/Jul/2023 14:03:18] "GET /static/admin/js/nav_sidebar.js HTTP/1.1" 304 0 [05/Jul/2023 14:03:18] "GET /static/admin/img/icon-addlink.svg HTTP/1.1" 304 0 [05/Jul/2023 14:03:18] "GET /static/admin/img/icon-changelink.svg HTTP/1.1" 304 0





```
[05/Jul/2023 14:03:35] "POST /admin/logout/ HTTP/1.1" 200 3628
[05/Jul/2023 14:03:39] "GET /admin/ HTTP/1.1" 302 0
[05/Jul/2023 14:03:39] "GET /admin/login/?next=/admin/ HTTP/1.1" 200 4244
[05/Jul/2023 14:03:39] "GET /static/admin/css/login.css HTTP/1.1" 304 0
[05/Jul/2023 14:04:30] "POST /admin/login/?next=/admin/ HTTP/1.1" 302 0
[05/Jul/2023 14:04:30] "GET /admin/ HTTP/1.1" 200 8361
[05/Jul/2023 14:05:16] "GET /admin/GestionAcademica/alumno/add/ HTTP/1.1" 200 12505
[05/Jul/2023 14:05:16] "GET /static/admin/css/forms.css HTTP/1.1" 304 0
[05/Jul/2023 14:05:16] "GET /static/admin/js/vendor/jquery/jquery.js HTTP/1.1" 304 0
[05/Jul/2023 14:05:16] "GET /static/admin/js/calendar.js HTTP/1.1" 304 0
[05/Jul/2023 14:05:16] "GET /static/admin/js/jquery.init.js HTTP/1.1" 304 0
[05/Jul/2023 14:05:16] "GET /static/admin/js/core.js HTTP/1.1" 304 0
[05/Jul/2023 14:05:16] "GET /static/admin/js/admin/RelatedObjectLookups.js HTTP/1.1" 304 0
[05/Jul/2023 14:05:16] "GET /static/admin/js/admin/DateTimeShortcuts.js HTTP/1.1" 304 0
[05/Jul/2023 14:05:16] "GET /static/admin/js/actions.js HTTP/1.1" 304 0
[05/Jul/2023 14:05:16] "GET /static/admin/js/urlify.js HTTP/1.1" 304 0
[05/Jul/2023 14:05:16] "GET /static/admin/js/prepopulate.js HTTP/1.1" 304 0
[05/Jul/2023 14:05:16] "GET /static/admin/js/vendor/xregexp/xregexp.js HTTP/1.1" 304 0
[05/Jul/2023 14:05:16] "GET /static/admin/js/prepopulate_init.js HTTP/1.1" 304 0
[05/Jul/2023 14:05:16] "GET /admin/jsi18n/ HTTP/1.1" 200 8006
[05/Jul/2023 14:05:16] "GET /static/admin/css/widgets.css HTTP/1.1" 304 0
[05/Jul/2023 14:05:17] "GET /static/admin/js/change_form.js HTTP/1.1" 304 0
[05/Jul/2023 14:05:17] "GET /static/admin/img/icon-calendar.svg HTTP/1.1" 304 0
[05/Jul/2023 14:07:33] "POST /admin/GestionAcademica/alumno/add/ HTTP/1.1" 302 0
[05/Jul/2023 14:07:33] "GET /admin/GestionAcademica/alumno/ HTTP/1.1" 200 9960
[05/Jul/2023 14:07:33] "GET /static/admin/css/changelists.css HTTP/1.1" 304 0
[05/Jul/2023 14:07:33] "GET /admin/jsi18n/ HTTP/1.1" 200 8006
[05/Jul/2023 14:07:33] "GET /static/admin/js/filters.js HTTP/1.1" 304 0
[05/Jul/2023 14:07:33] "GET /static/admin/img/icon-yes.svg HTTP/1.1" 304 0
[05/Jul/2023 14:07:33] "GET /static/admin/img/tooltag-add.svg HTTP/1.1" 304 0
[05/Jul/2023 14:08:06] "GET /admin/GestionAcademica/curso/add/ HTTP/1.1" 200 10208
[05/Jul/2023 14:08:06] "GET /admin/jsi18n/ HTTP/1.1" 200 8006
[05/Jul/2023 14:09:12] "POST /admin/GestionAcademica/curso/add/ HTTP/1.1" 302 0
[05/Jul/2023 14:09:12] "GET /admin/GestionAcademica/curso/ HTTP/1.1" 200 9992
[05/Jul/2023 14:09:12] "GET /admin/jsi18n/ HTTP/1.1" 200 8006
[05/Jul/2023 14:09:46] "GET /admin/GestionAcademica/matriculas/add/ HTTP/1.1" 200 11957
[05/Jul/2023 14:09:46] "GET /admin/jsi18n/ HTTP/1.1" 200 8006
[05/Jul/2023 14:09:46] "GET /static/admin/img/icon-viewlink.svg HTTP/1.1" 304 0
[05/Jul/2023 14:10:29] "POST /admin/GestionAcademica/matriculas/add/ HTTP/1.1" 302 0
[05/Jul/2023 14:10:29] "GET /admin/GestionAcademica/matriculas/ HTTP/1.1" 200 10200
[05/Jul/2023 14:10:29] "GET /admin/jsi18n/ HTTP/1.1" 200 8006
[05/Jul/2023 14:11:07] "POST /admin/GestionAcademica/matriculas/ HTTP/1.1" 200 8486
[05/Jul/2023 14:11:07] "GET /static/admin/js/cancel.js HTTP/1.1" 200 884
[05/Jul/2023 14:11:09] "POST /admin/GestionAcademica/matriculas/ HTTP/1.1" 302 0
[05/Jul/2023 14:11:09] "GET /admin/GestionAcademica/matriculas/ HTTP/1.1" 200 9746
[05/Jul/2023 14:11:09] "GET /admin/jsi18n/ HTTP/1.1" 200 8006
[05/Jul/2023 14:11:16] "GET /admin/GestionAcademica/matriculas/add/ HTTP/1.1" 200 11957
[05/Jul/2023 14:11:16] "GET /admin/jsi18n/ HTTP/1.1" 200 8006
[05/Jul/2023 14:11:48] "POST /admin/GestionAcademica/matriculas/add/ HTTP/1.1" 302 0
[05/Jul/2023 14:11:48] "GET /admin/GestionAcademica/matriculas/ HTTP/1.1" 200 10162
[05/Jul/2023 14:11:48] "GET /admin/jsi18n/ HTTP/1.1" 200 8006
[05/Jul/2023 14:11:54] "GET /admin/GestionAcademica/matriculas/add/ HTTP/1.1" 200 11957
```



[05/Jul/2023 14:11:54] "GET /admin/jsi18n/ HTTP/1.1" 200 8006 [05/Jul/2023 14:12:26] "POST /admin/GestionAcademica/matriculas/add/ HTTP/1.1" 302 0 [05/Jul/2023 14:12:26] "GET /admin/GestionAcademica/matriculas/ HTTP/1.1" 200 10463 [05/Jul/2023 14:12:26] "GET /admin/jsi18n/ HTTP/1.1" 200 8006 [05/Jul/2023 14:13:01] "POST /admin/GestionAcademica/matriculas/ HTTP/1.1" 200 8467 [05/Jul/2023 14:13:19] "POST /admin/GestionAcademica/matriculas/ HTTP/1.1" 302 0 [05/Jul/2023 14:13:19] "GET /admin/GestionAcademica/matriculas/ HTTP/1.1" 200 10039 [05/Jul/2023 14:13:19] "GET /admin/jsi18n/ HTTP/1.1" 200 8006 [05/Jul/2023 14:13:43] "POST /admin/logout/ HTTP/1.1" 200 3628

(mientorno) C:\Users\Lenin\misunap>exit