UNIVERSIDAD DE SAN CARLOS DE GUATEMALA FACULTAD DE INGENIERÍA ESCUELA DE CIENCIAS Y SISTEMAS SISTEMAS DE BASES DE DATOS 2 SECCIÓN P
ING. MARLON FRANCISCO ORELLANA LOPEZ
AUX. JHONATHAN DANIEL TOCAY ESCUELA DE VACACIONES
JUNIO 2024

Practica1 - Backups

Integrantes	Carne
Kevin Josué Xiloj Subuyú	202000660
Diego Andres Huite Alvarez	202003585
Paulo Fernando Mérida Salazar	202002042

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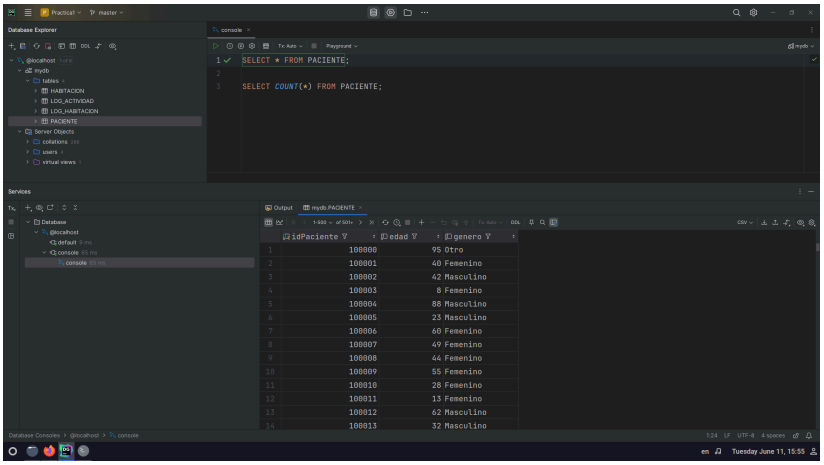
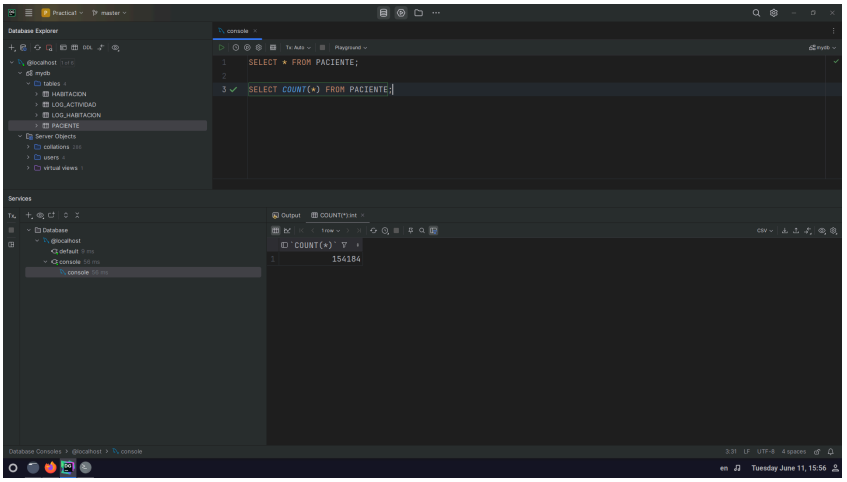
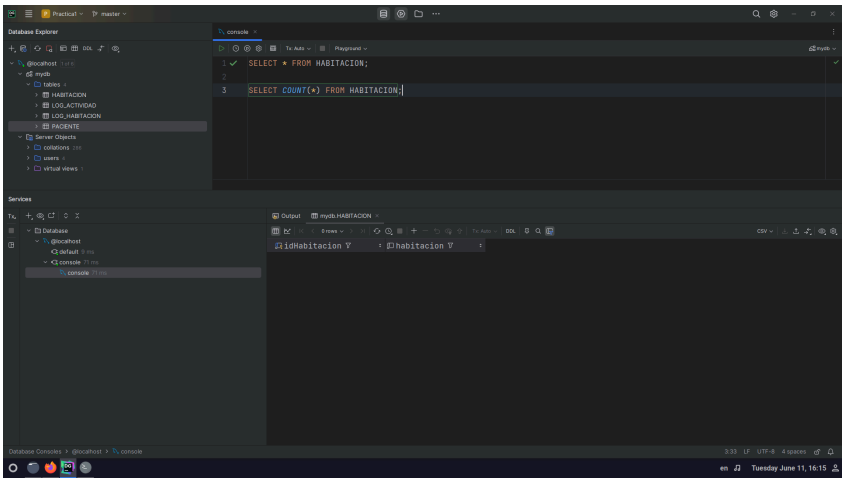
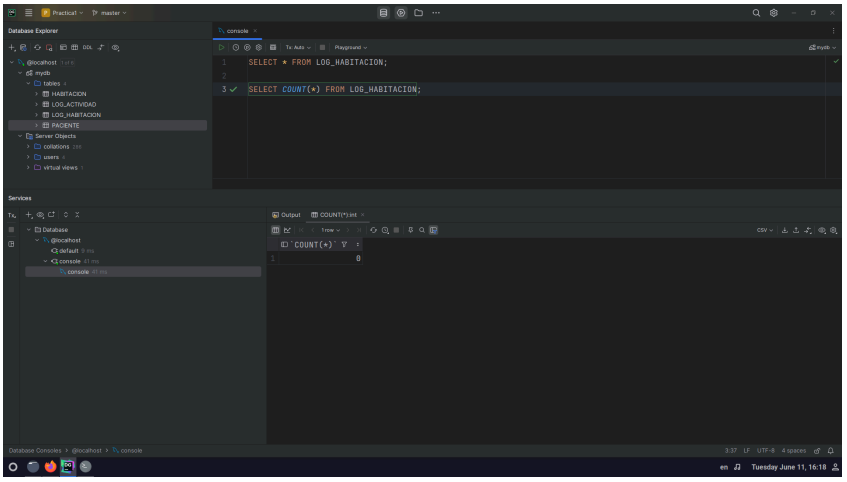
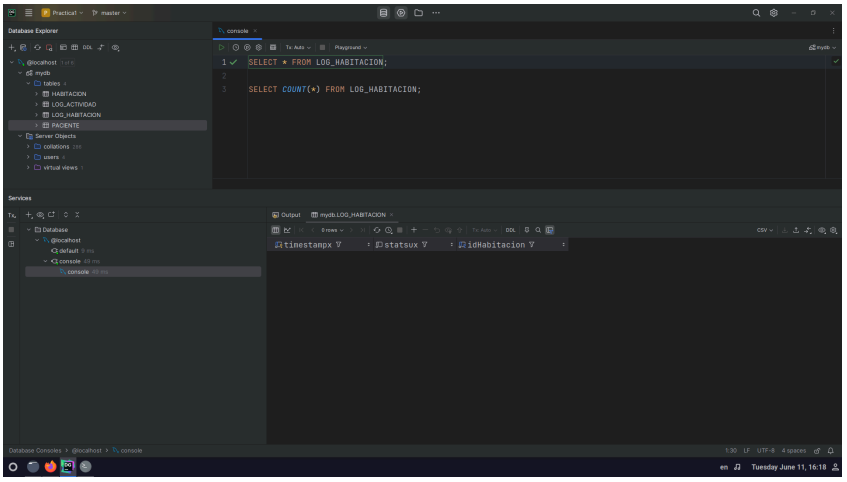
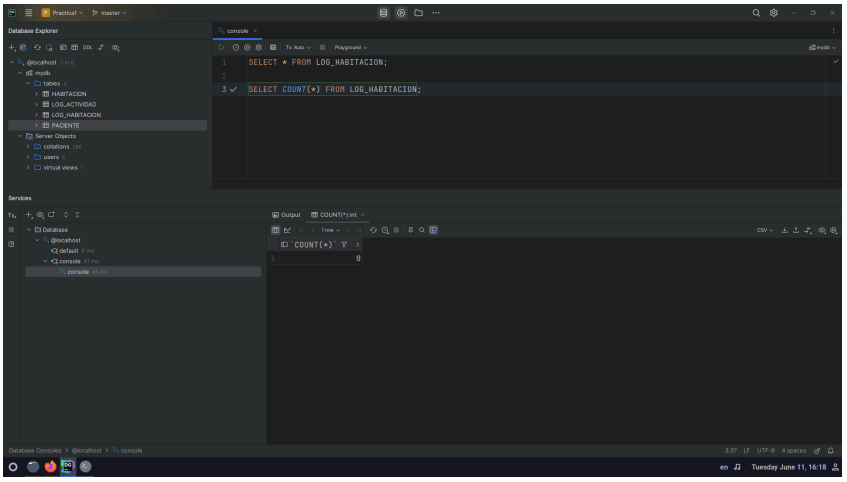
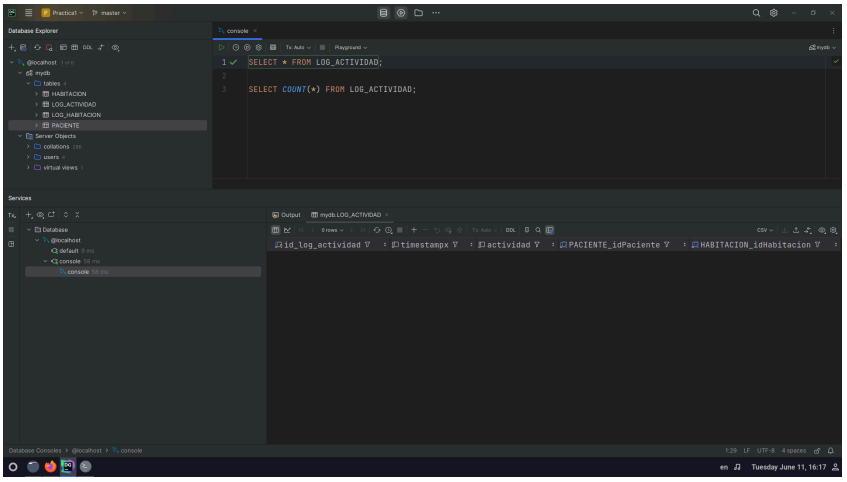
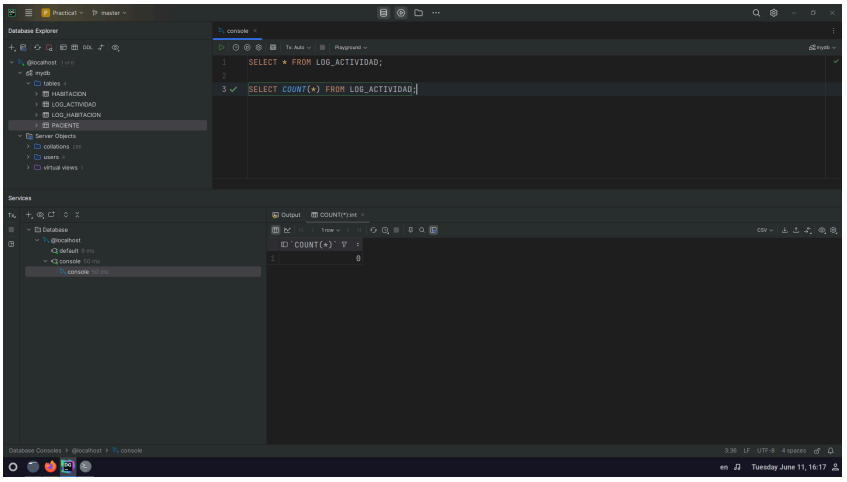
Capturas

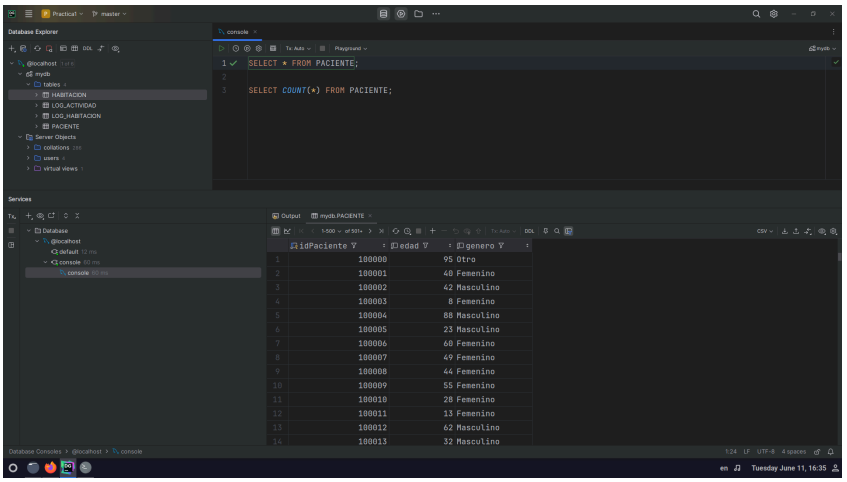
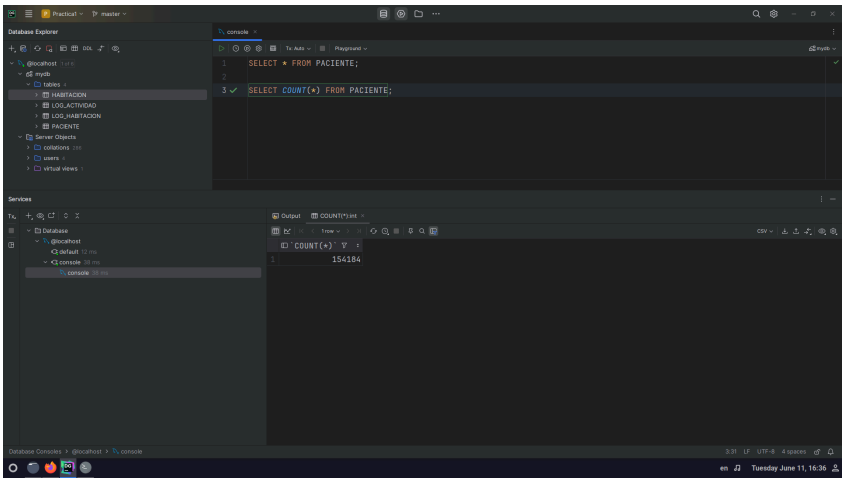
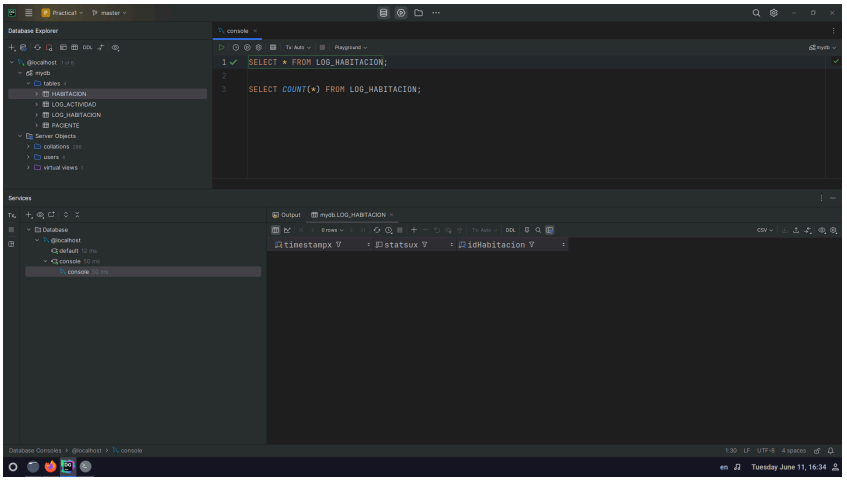
Actividad 1

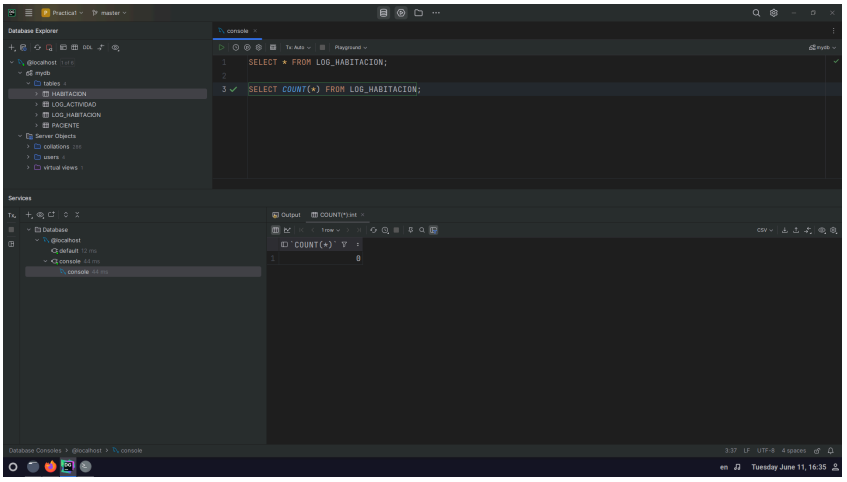
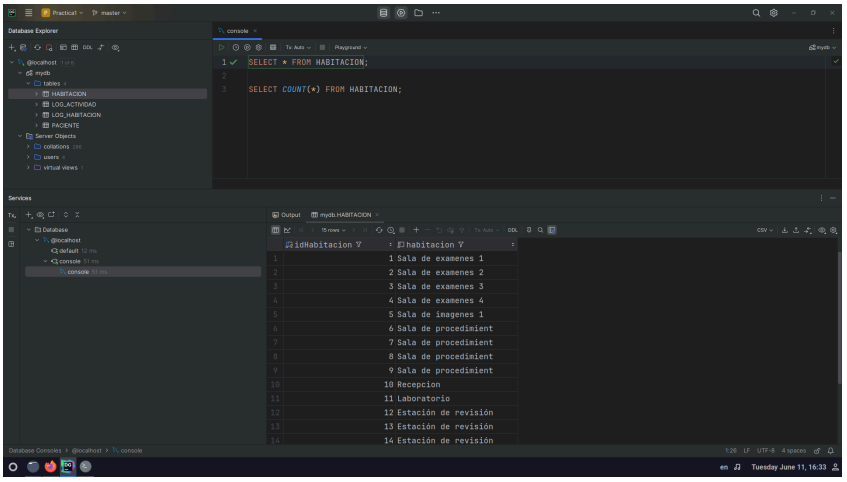
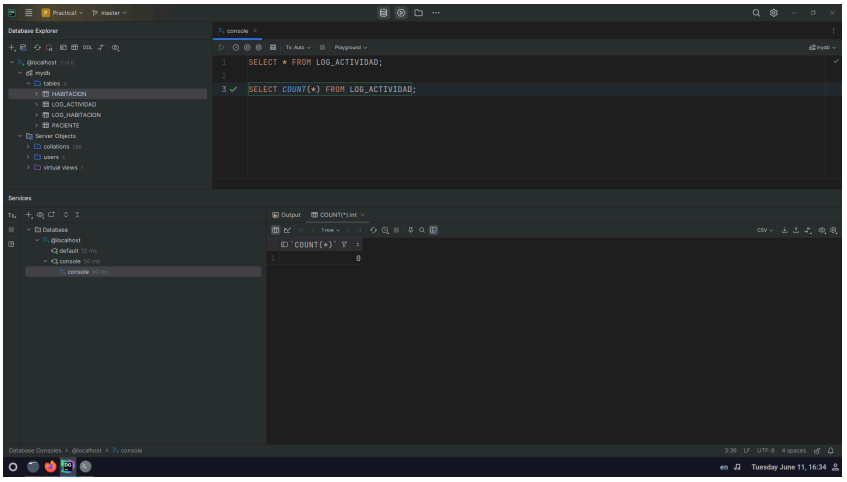
Tabla	Acción	Imagen
Pacientes	SELECT *	
	SELECT COUNT (*)	
Habitaciones	SELECT *	

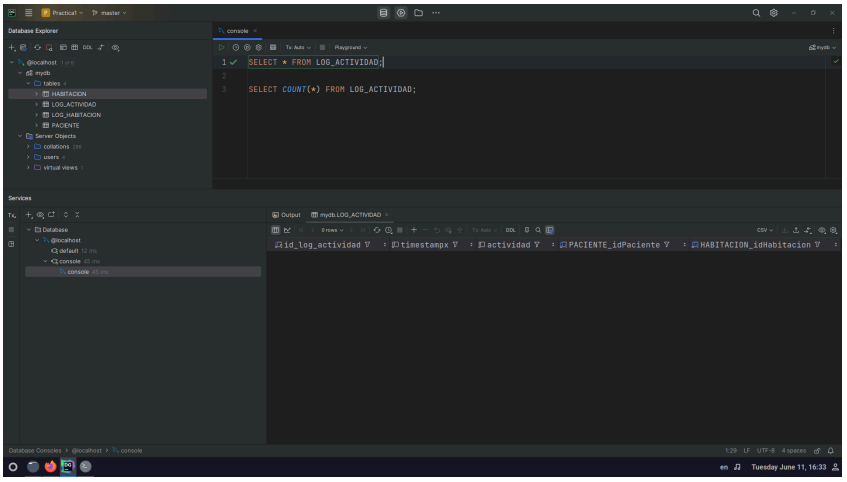
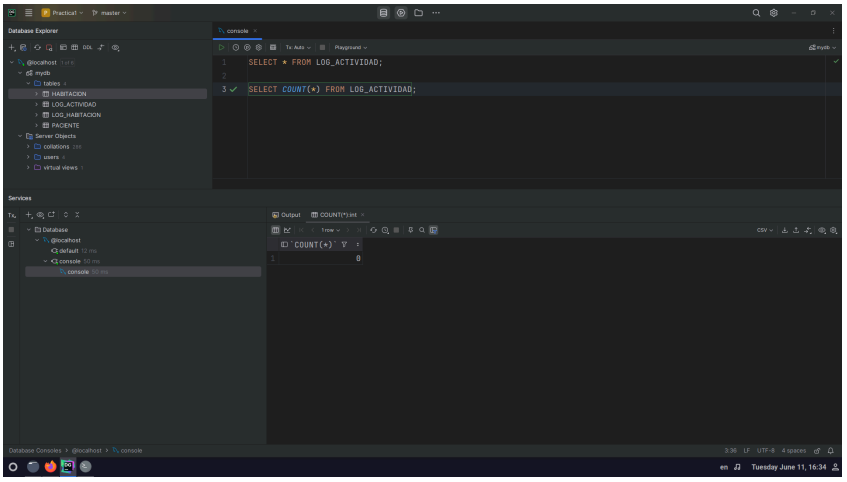
	SELECT COUNT (*)	
Log Habitaciones	SELECT *	
	SELECT COUNT (*)	

Log Actividades	SELECT *	
	SELECT COUNT (*)	

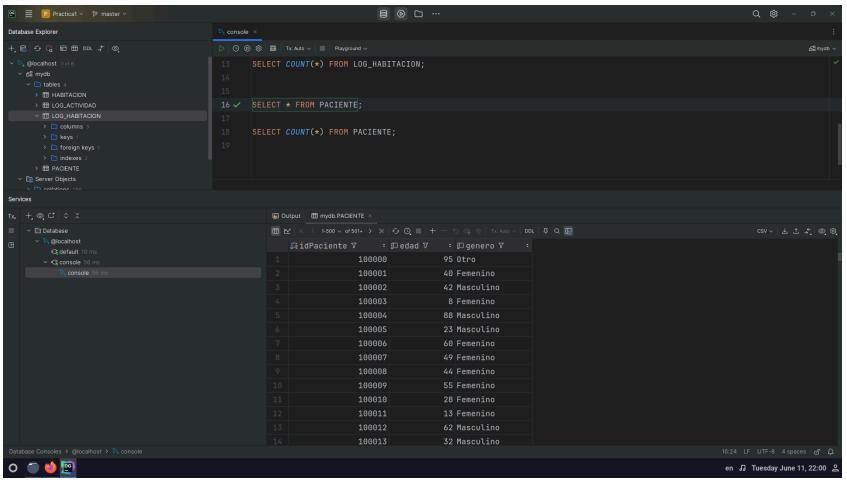
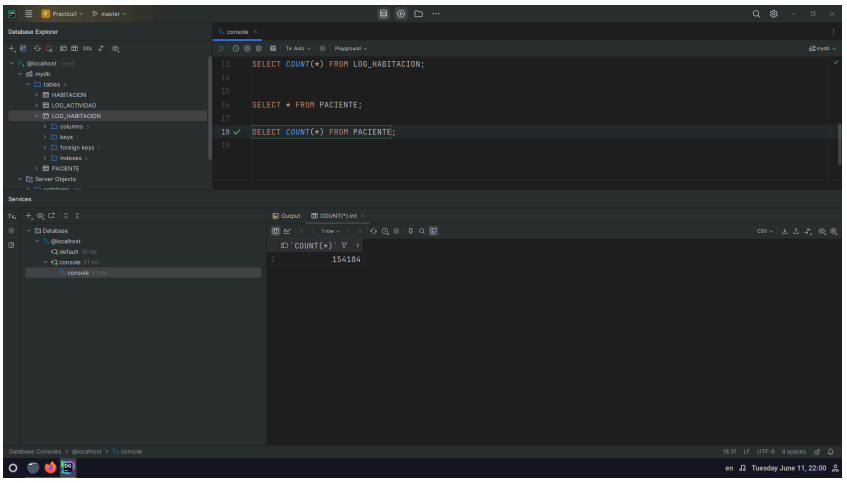
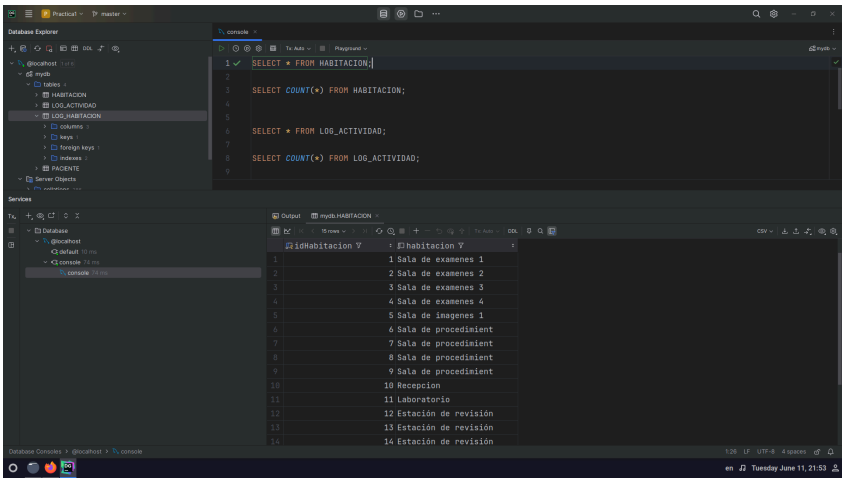
Actividad 2

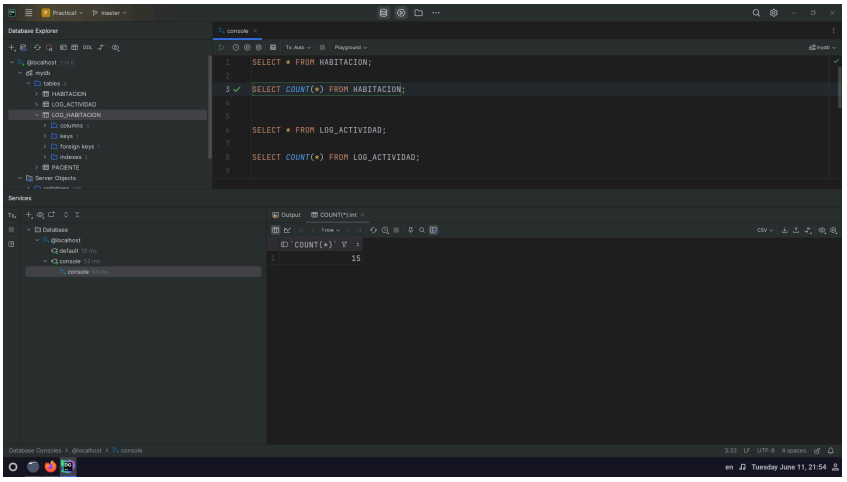
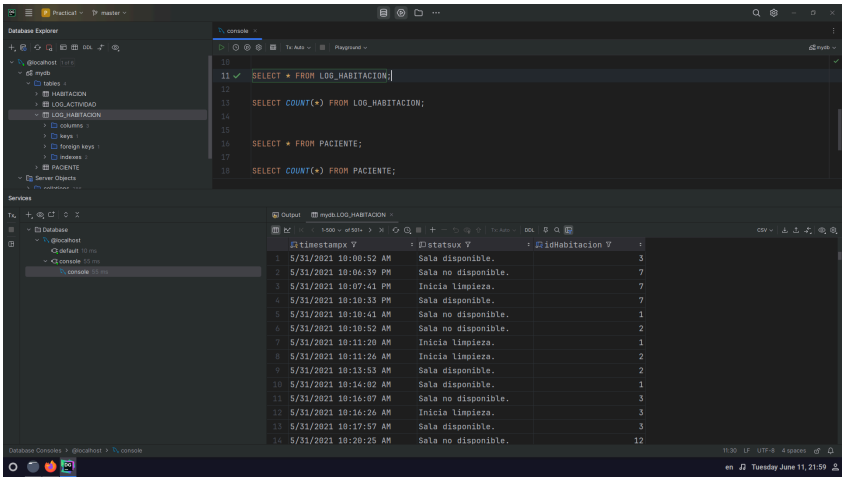
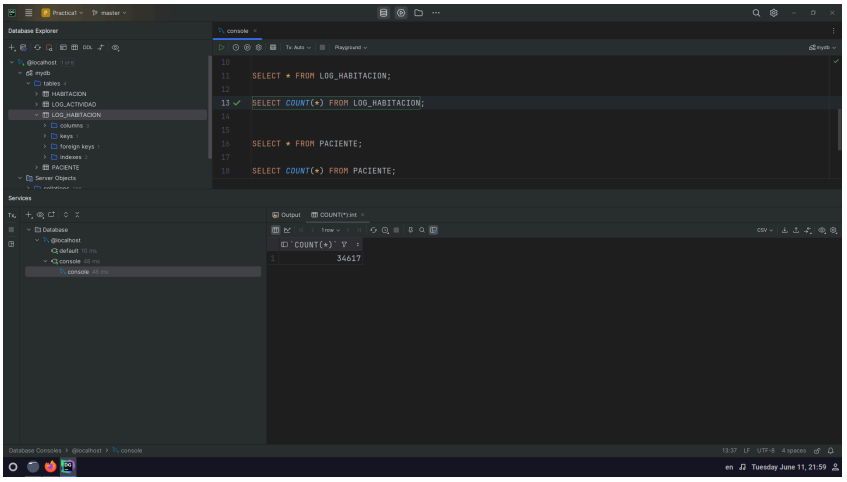
Tabla	Acción	Imagen
Pacientes	SELECT *	
	SELECT COUNT (*)	
Habitaciones	SELECT *	

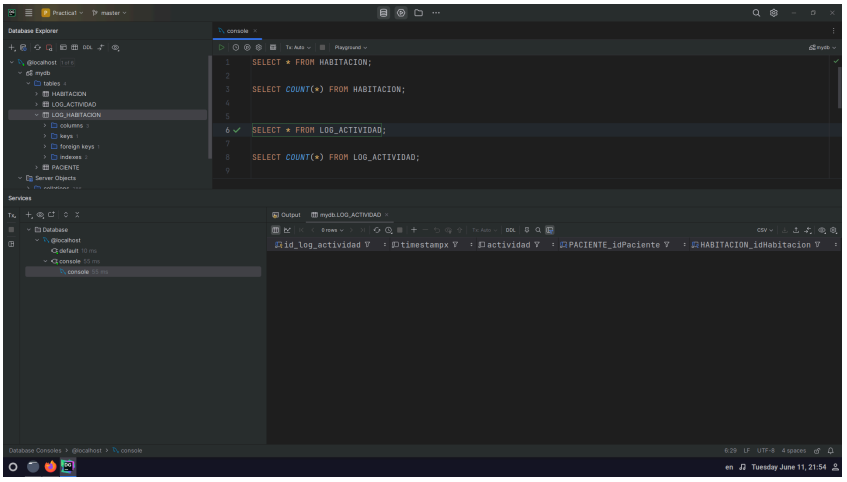
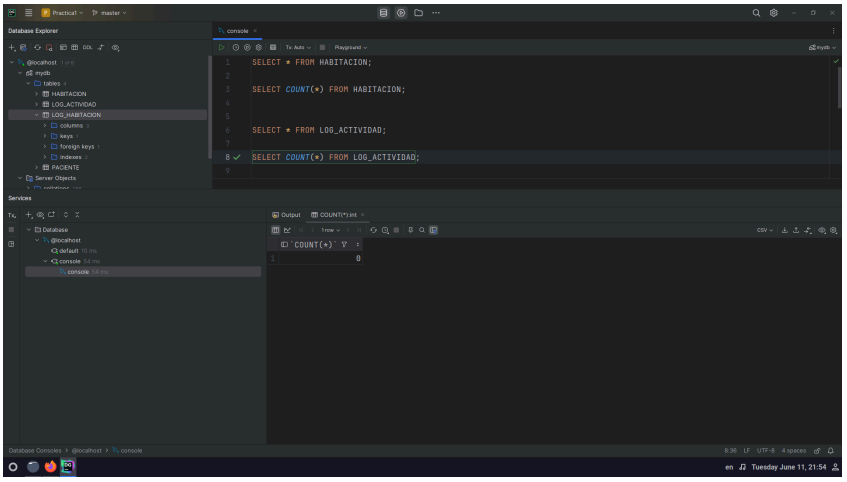
	SELECT COUNT (*)	
Log Habitaciones	SELECT *	
	SELECT COUNT (*)	

Log Actividades	SELECT *	
	SELECT COUNT (*)	

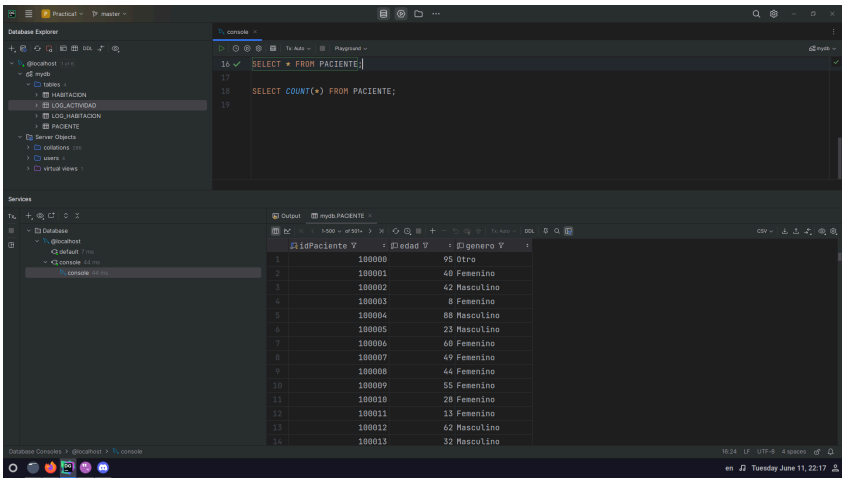
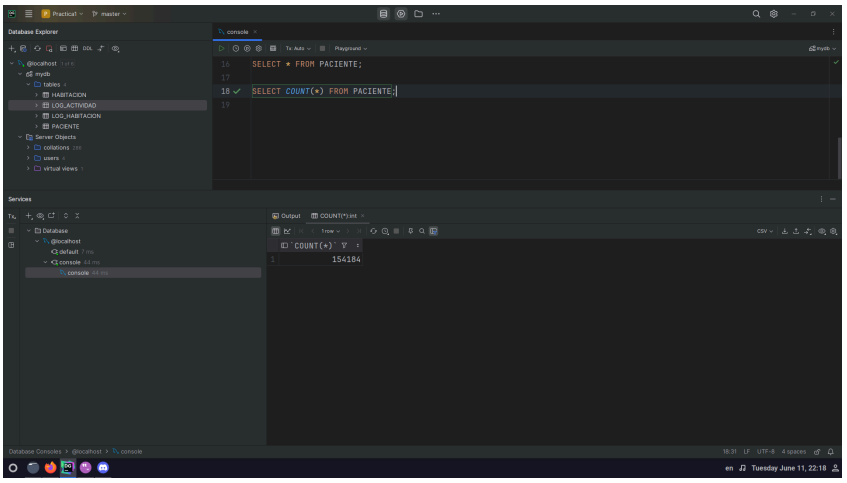
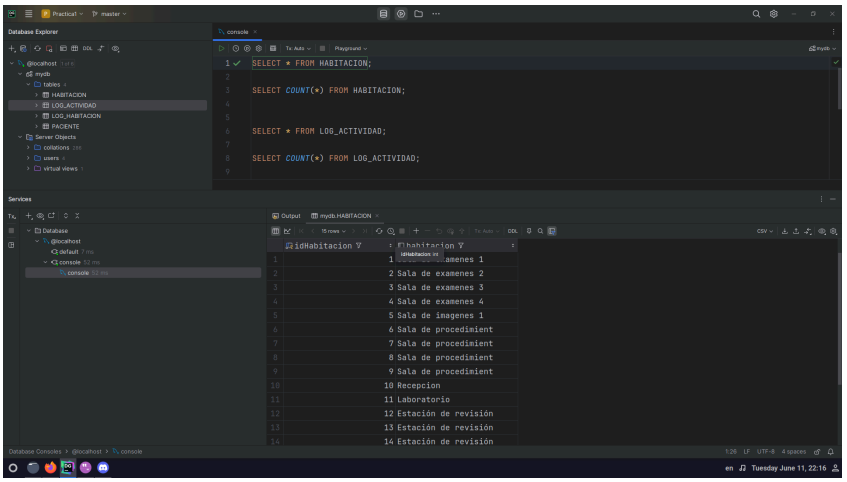
Actividad 3

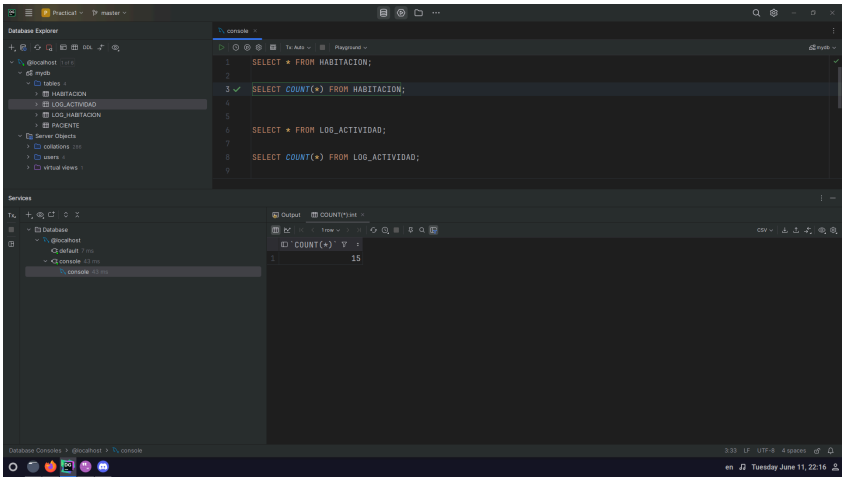
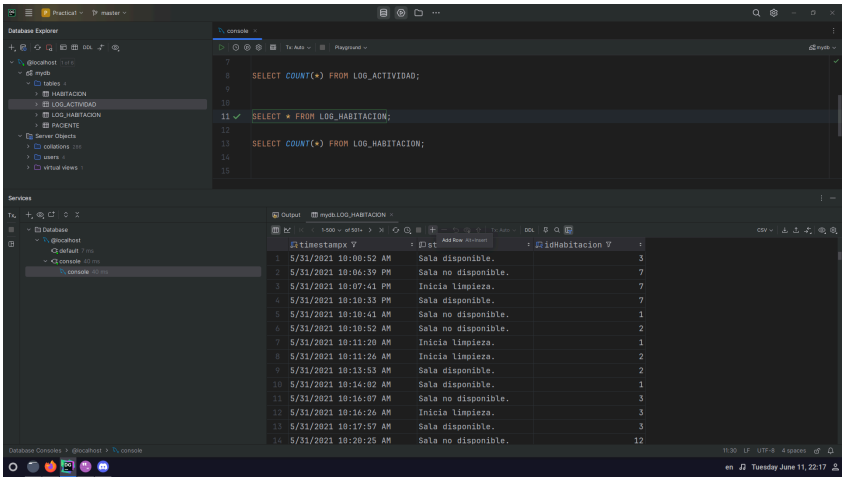
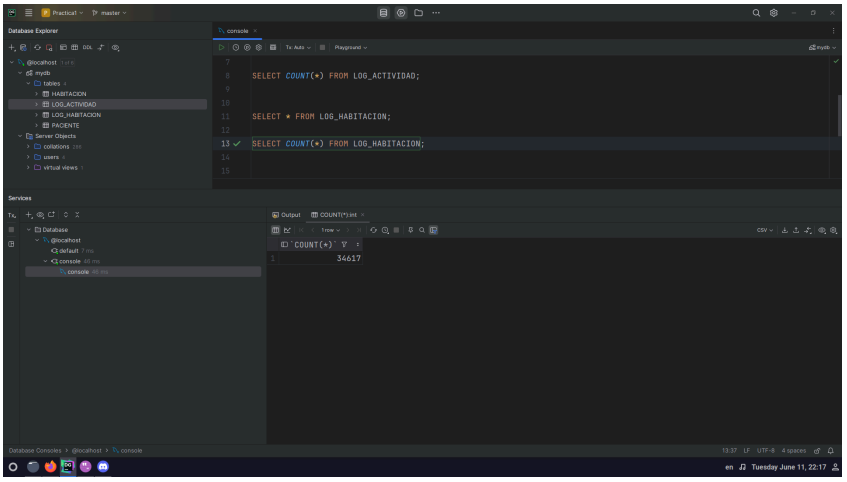
Tabla	Acción	Imagen
Pacientes	SELECT *	
	SELECT COUNT (*)	
Habitaciones	SELECT *	

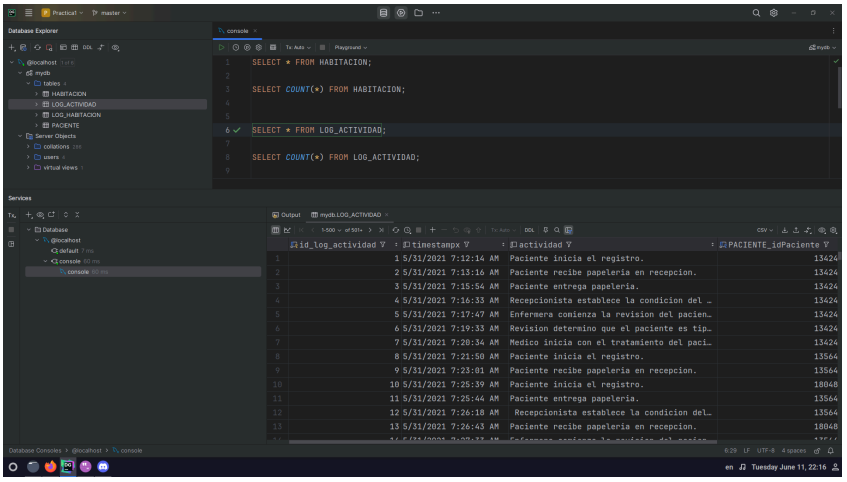
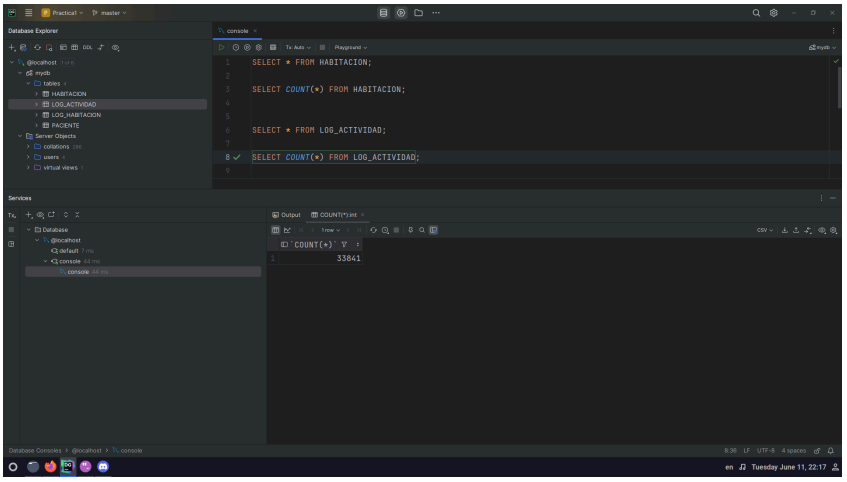
	SELECT COUNT (*)	
Log Habitaciones	SELECT *	
	SELECT COUNT (*)	

Log Actividades	SELECT *	
	SELECT COUNT (*)	

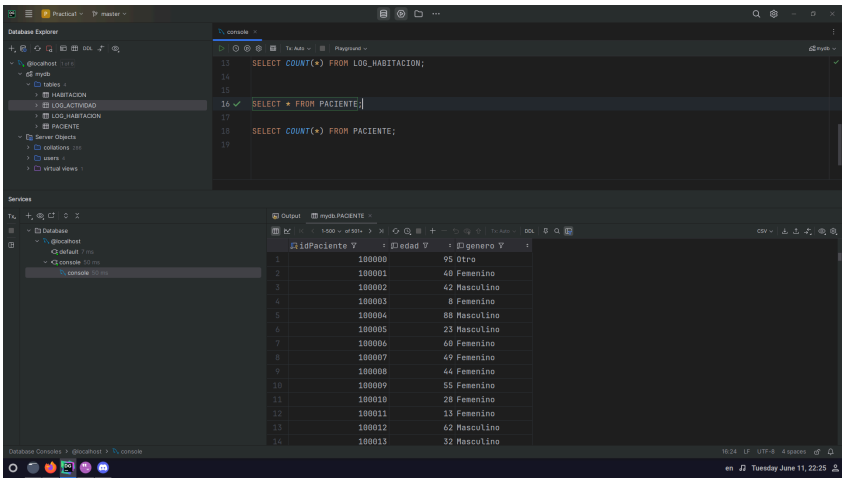
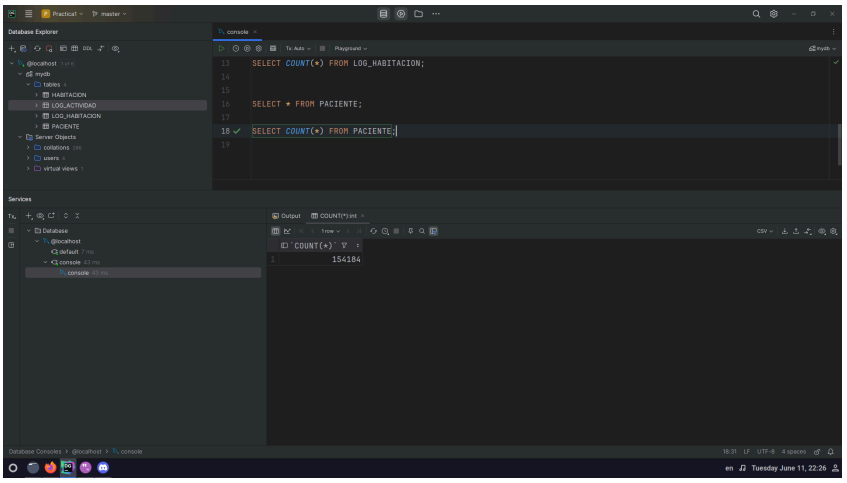
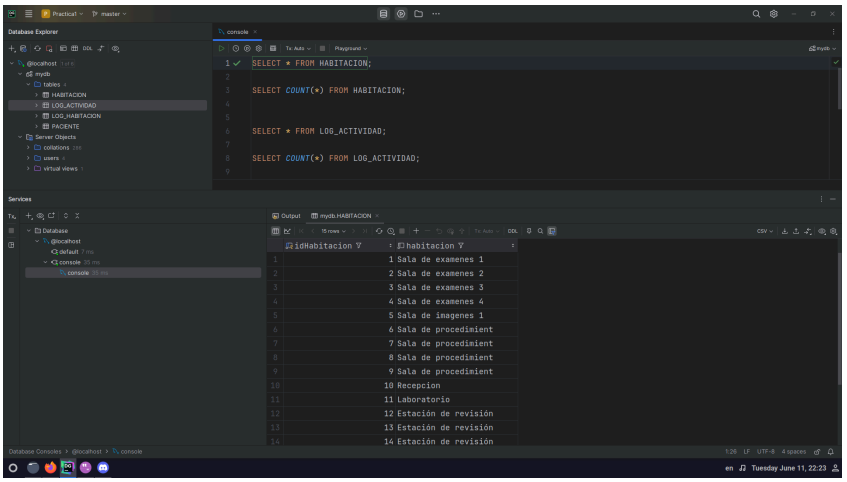
Actividad 4

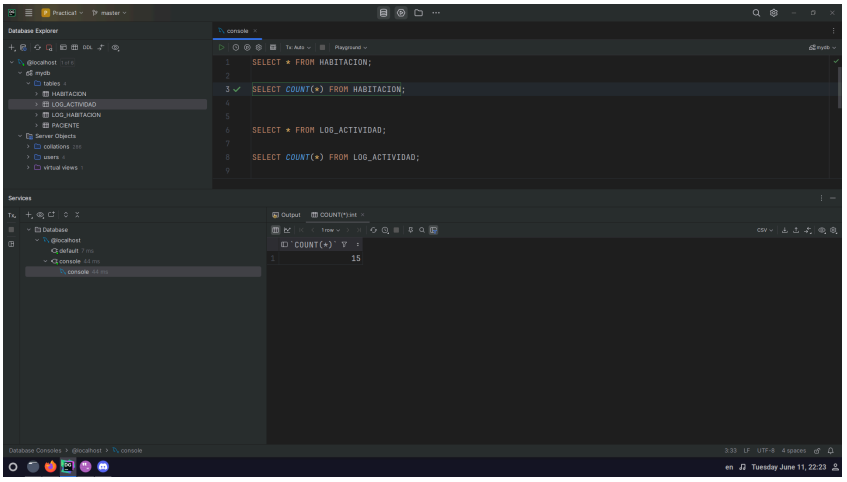
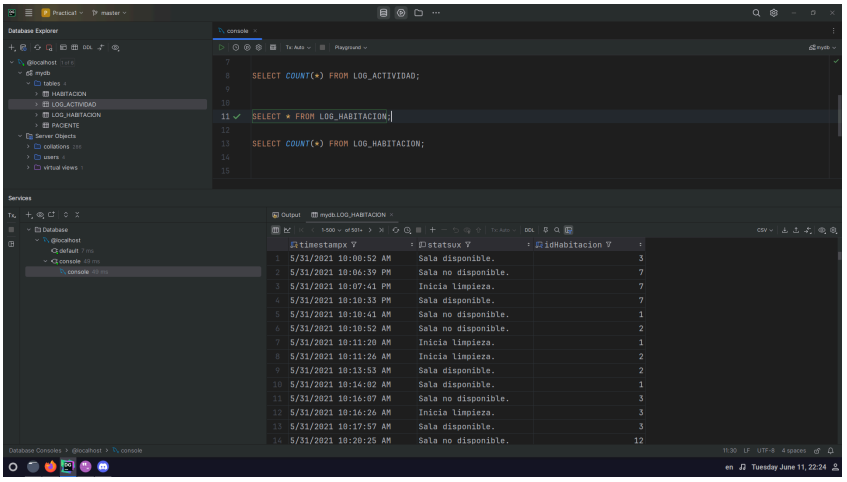
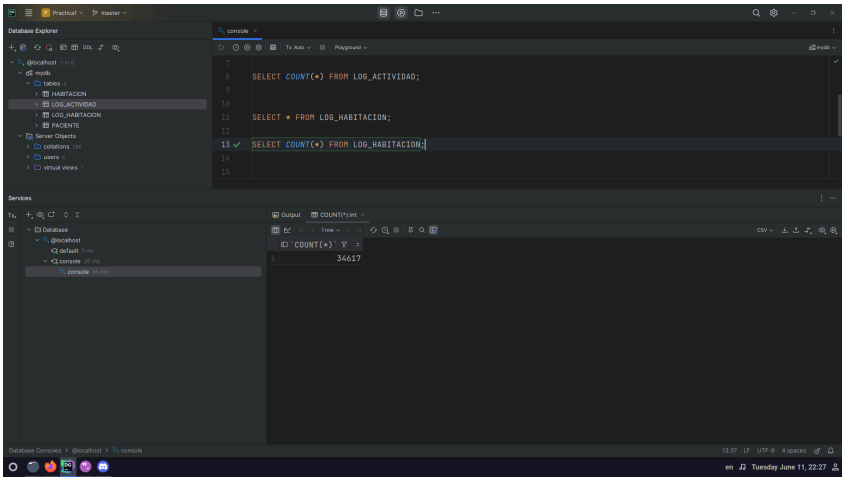
Tabla	Acción	Imagen
Pacientes	SELECT *	
	SELECT COUNT (*)	
Habitaciones	SELECT *	

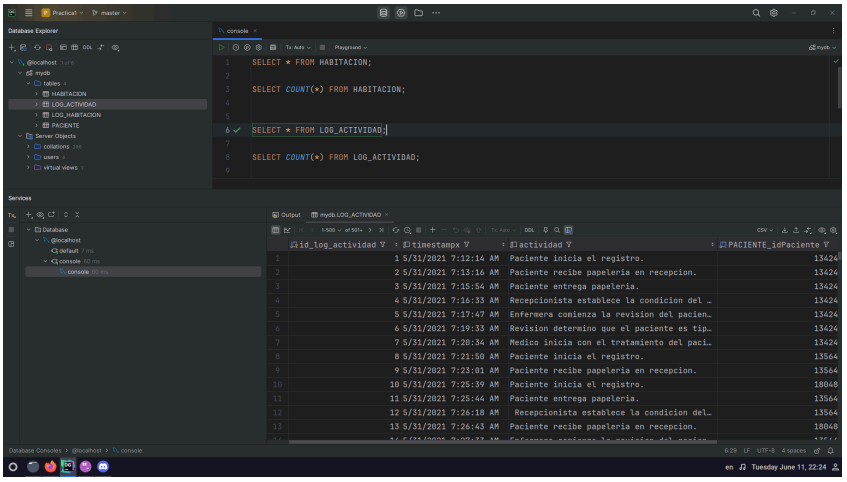
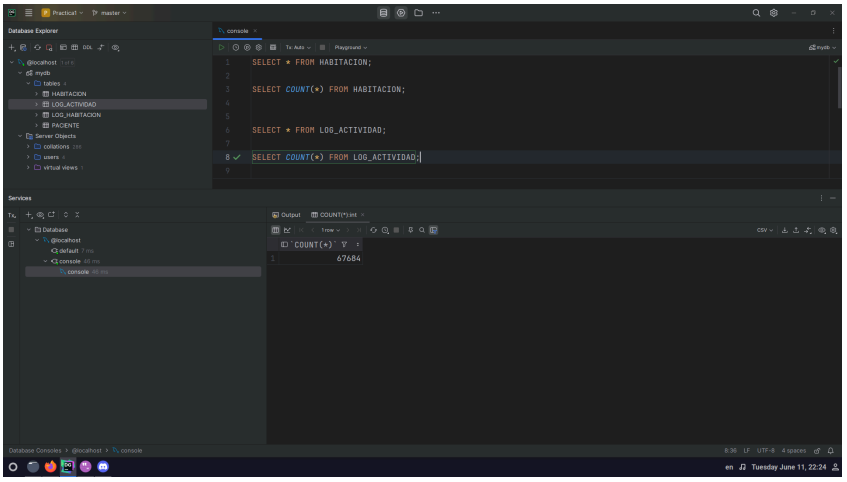
	SELECT COUNT (*)	
Log Habitaciones	SELECT *	
	SELECT COUNT (*)	

Log Actividades	SELECT *	
	SELECT COUNT (*)	

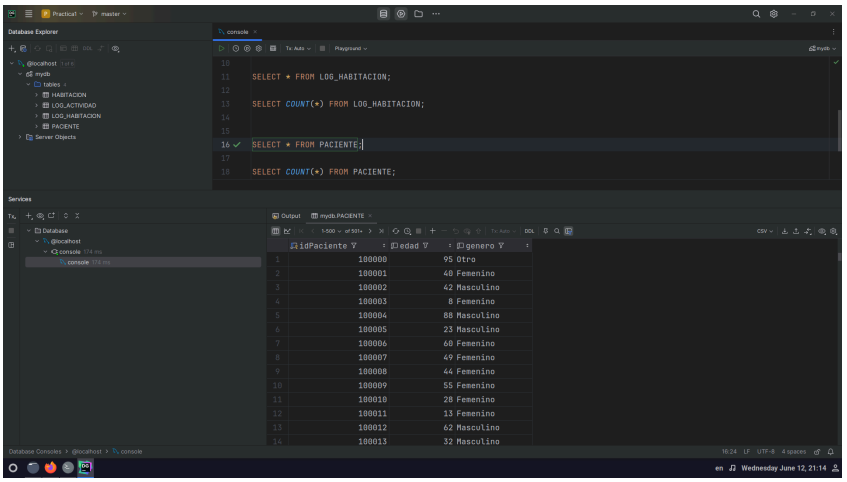
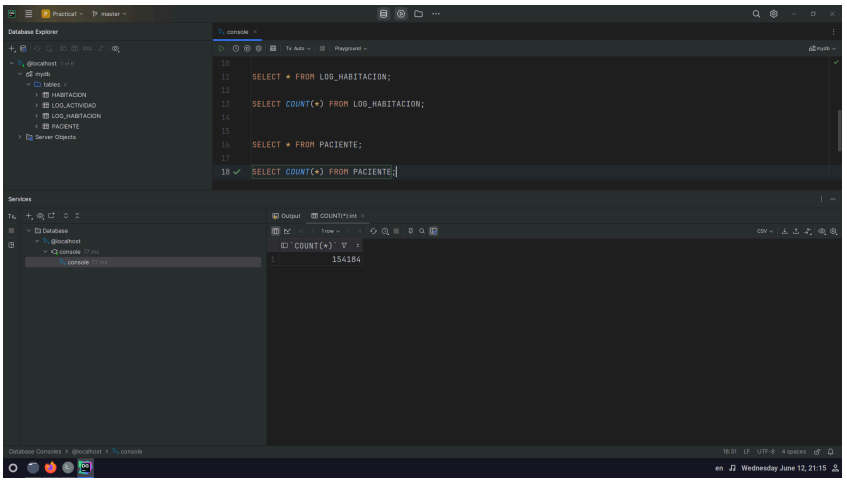
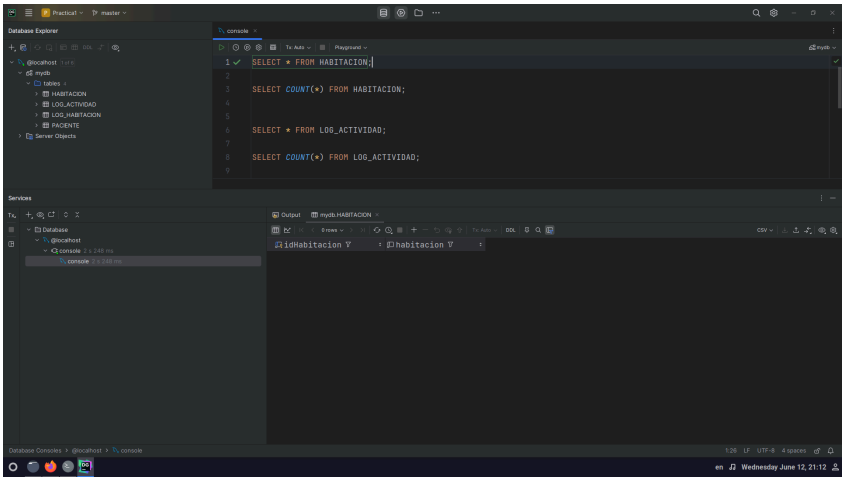
Actividad 5

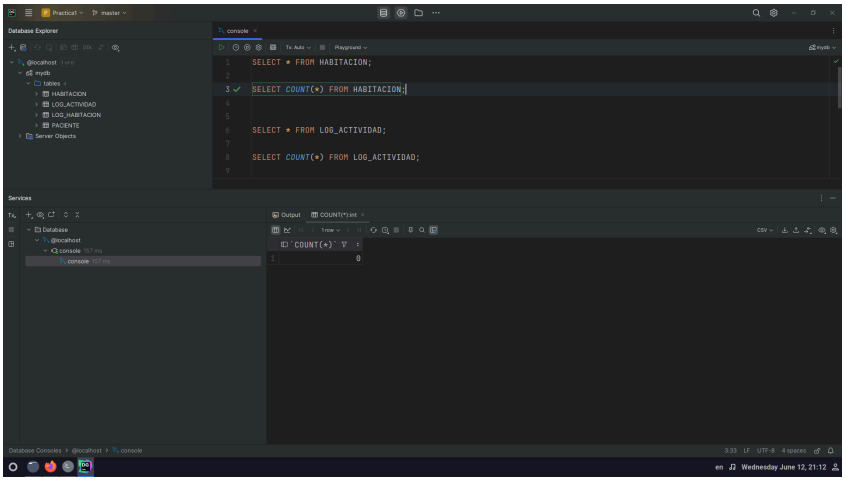
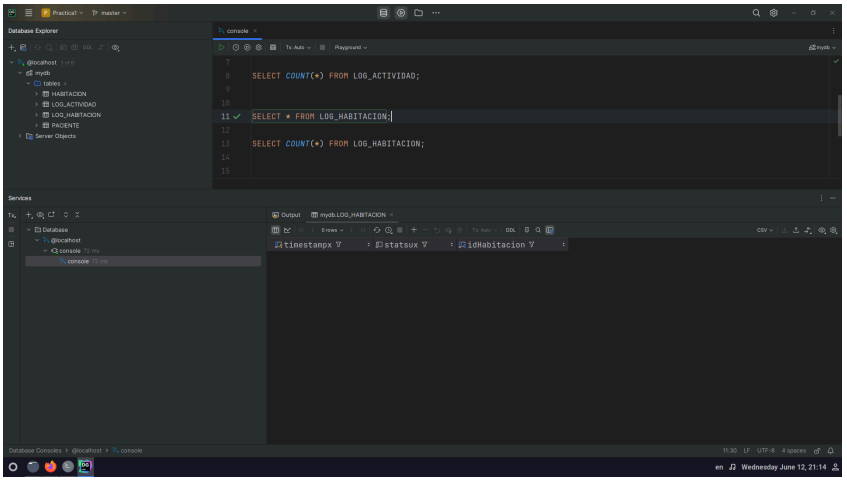
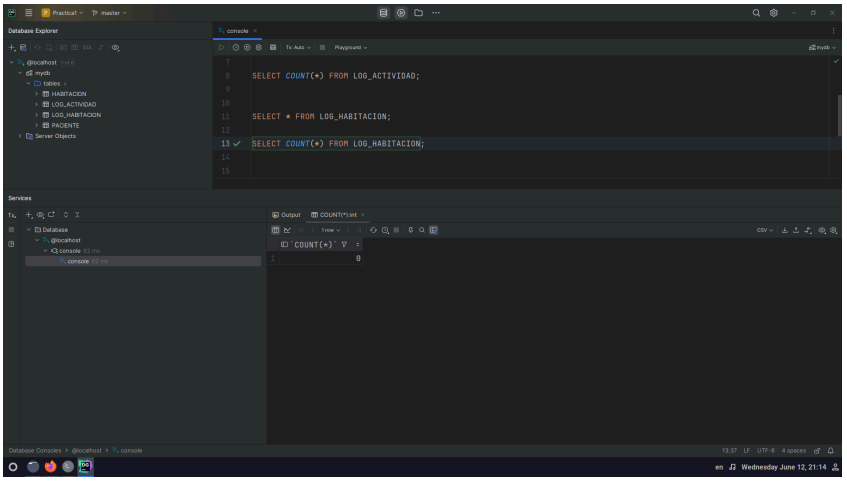
Tabla	Acción	Imagen
Pacientes	SELECT *	
	SELECT COUNT (*)	
Habitaciones	SELECT *	

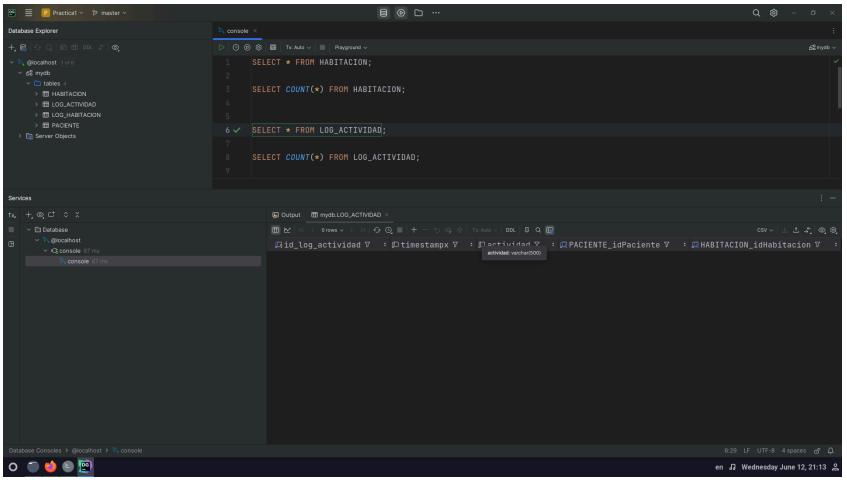
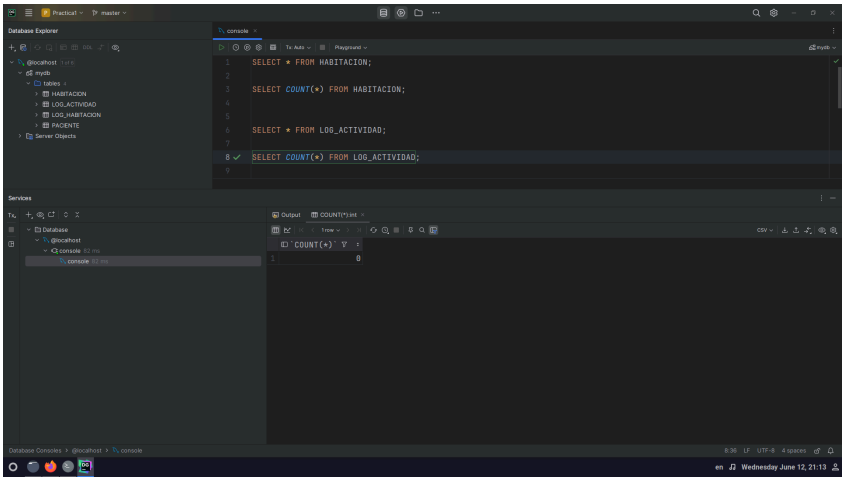
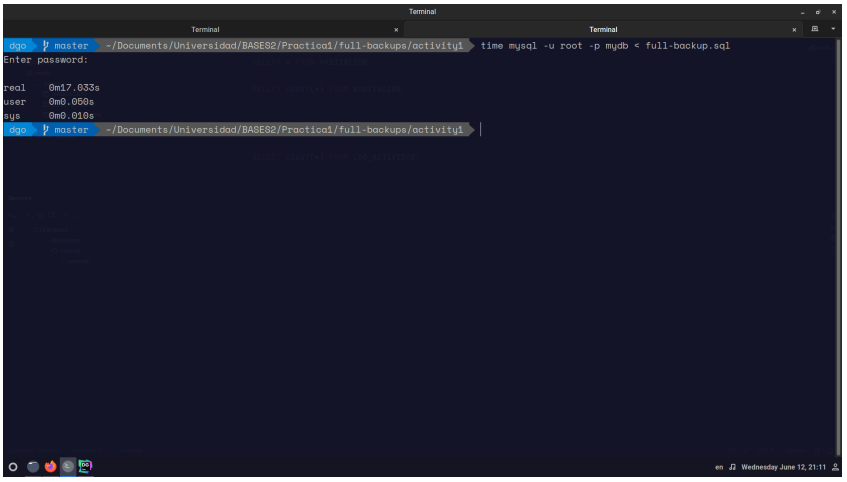
	SELECT COUNT (*)	
Log Habitaciones	SELECT *	
	SELECT COUNT (*)	

Log Actividades	SELECT *	
	SELECT COUNT (*)	

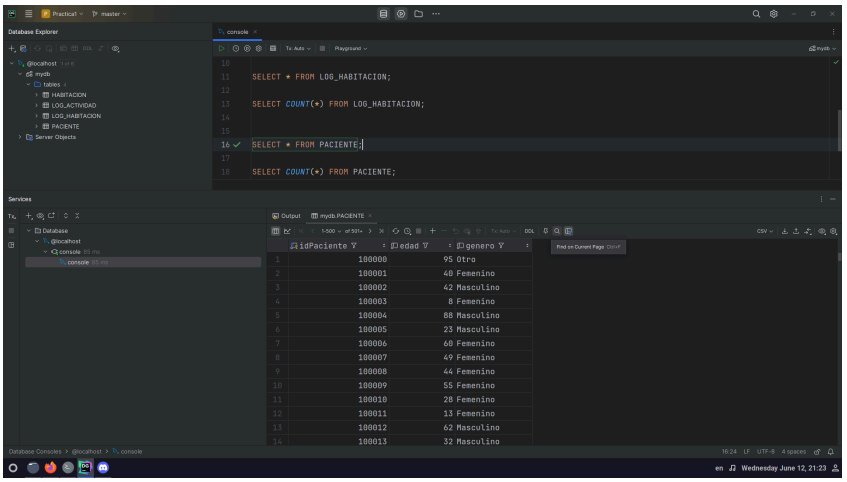
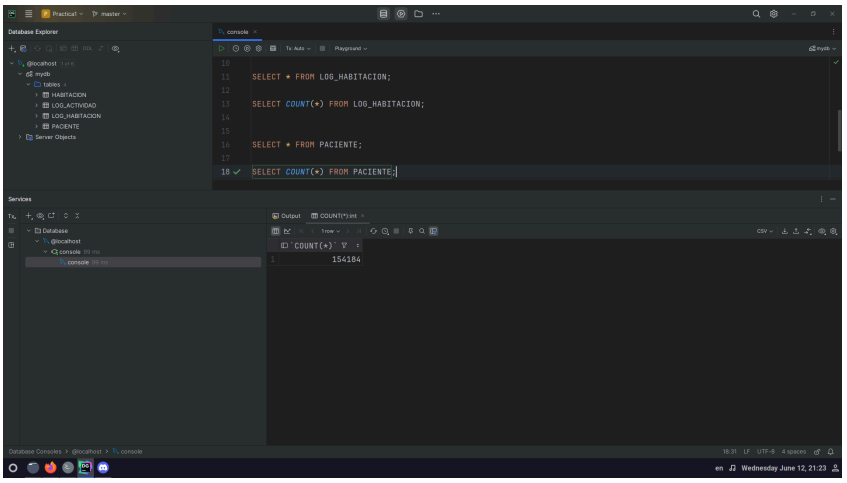
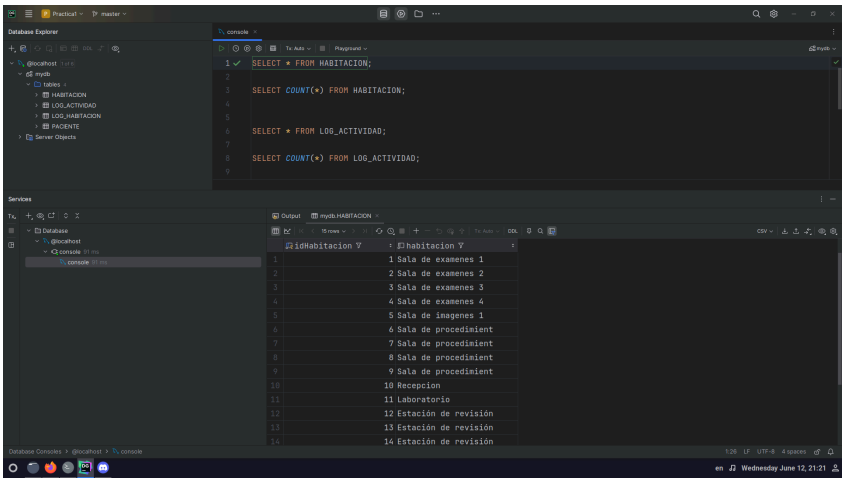
Actividad 6

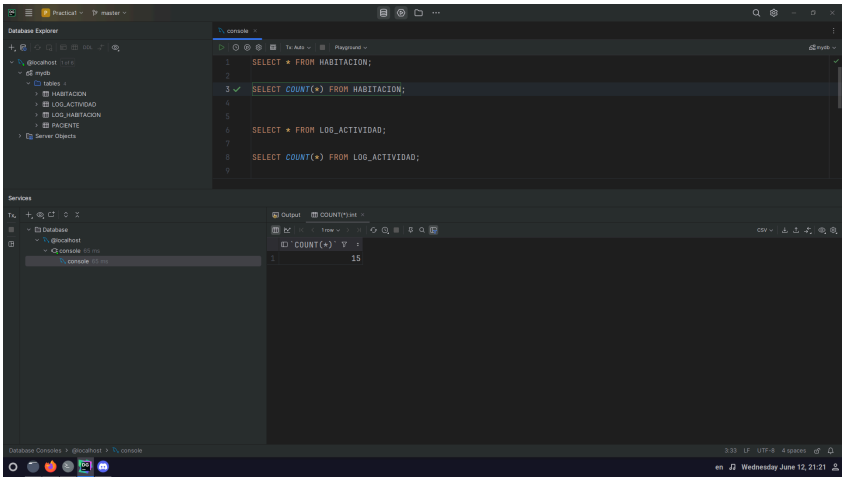
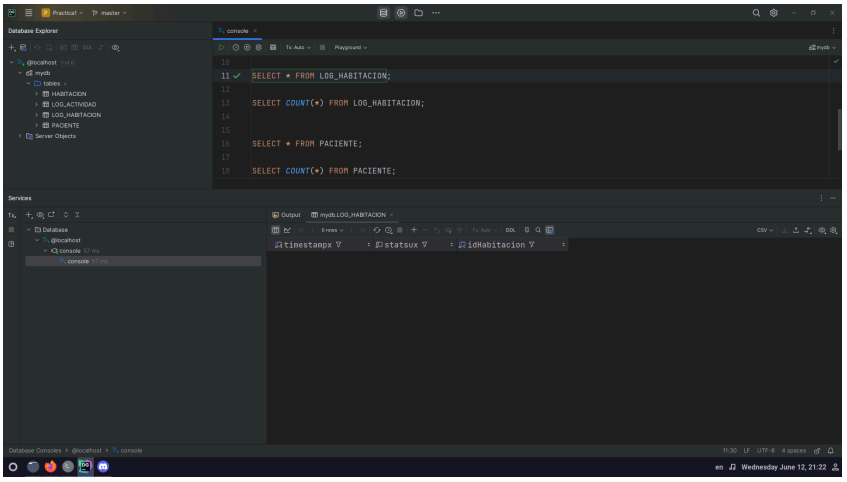
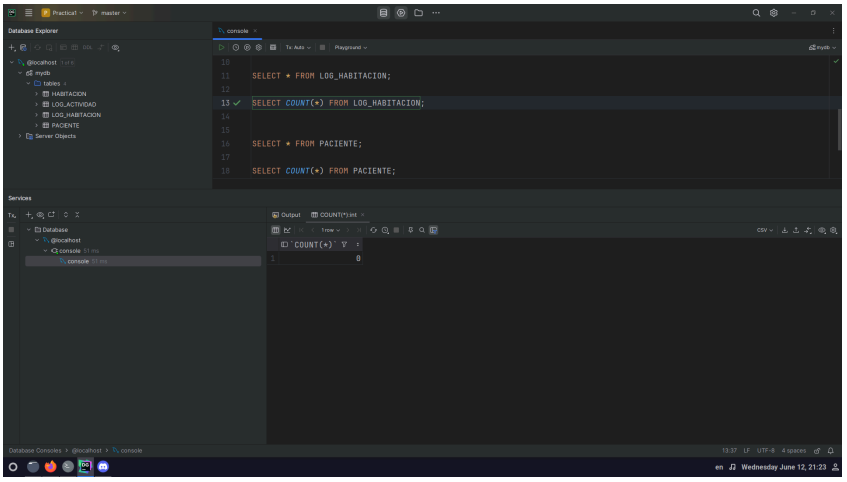
Tabla	Acción	Imagen
Pacientes	SELECT *	
	SELECT COUNT (*)	
Habitaciones	SELECT *	

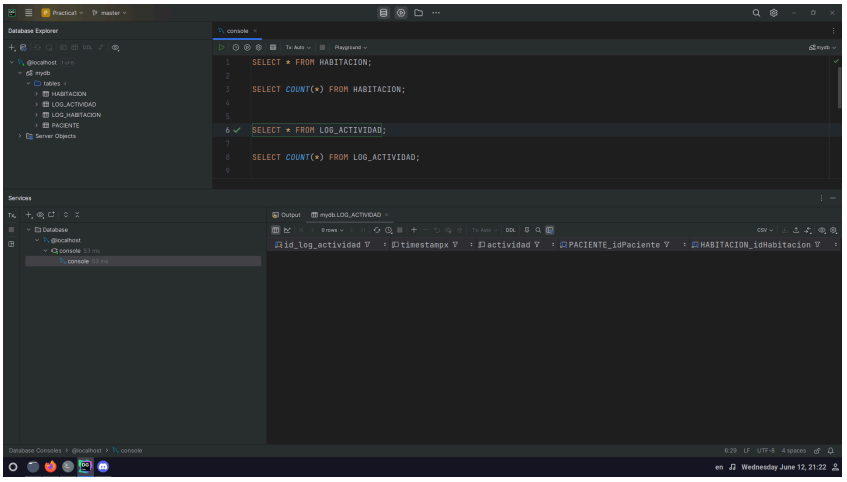
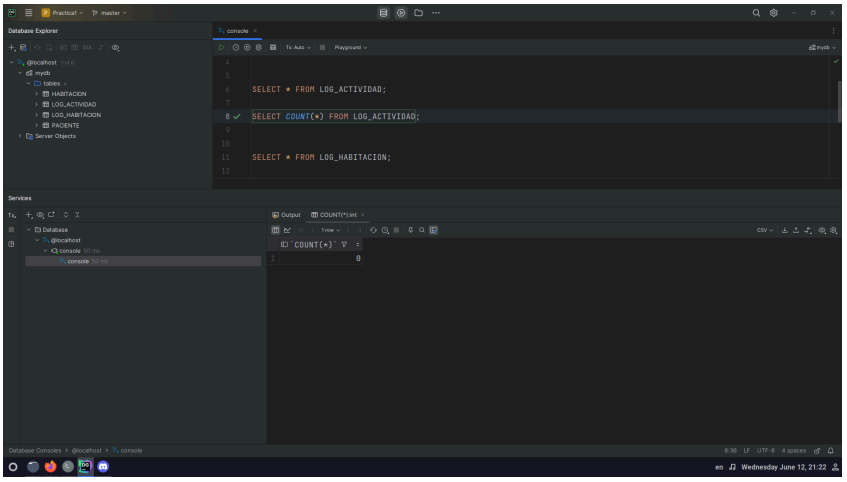
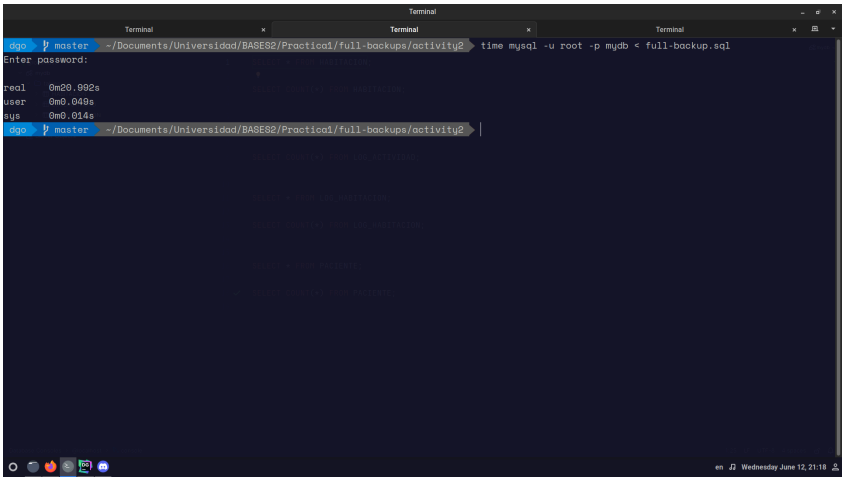
	SELECT COUNT (*)	
Log Habitaciones	SELECT *	
	SELECT COUNT (*)	

Log Actividades	SELECT *	
	SELECT COUNT (*)	
---	Restauración	

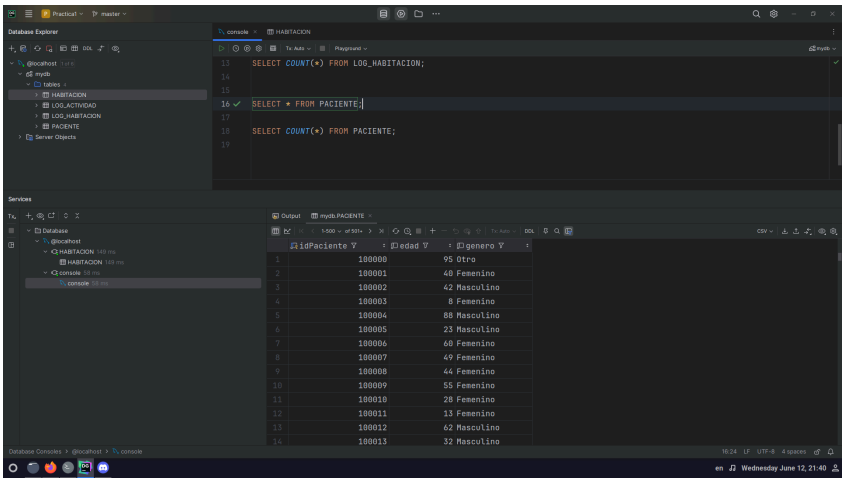
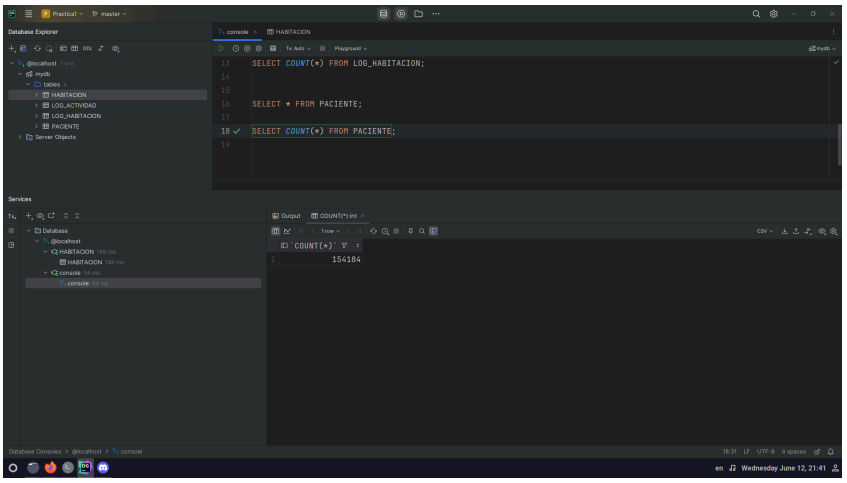
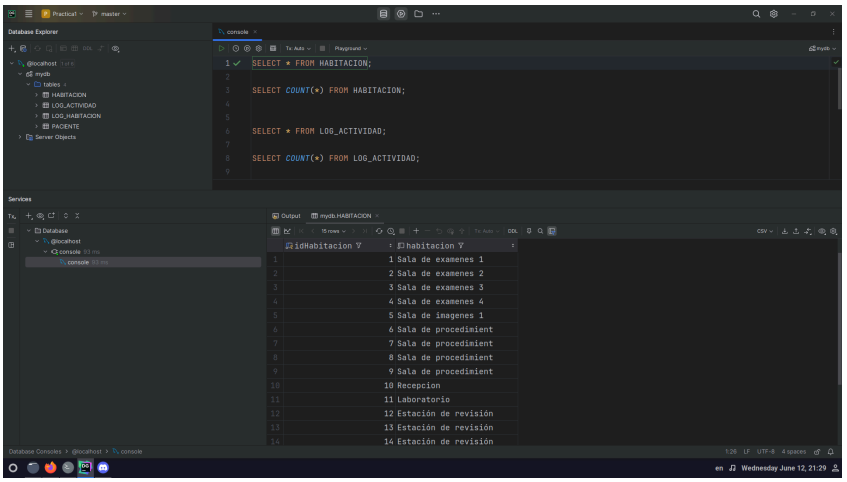
Actividad 7

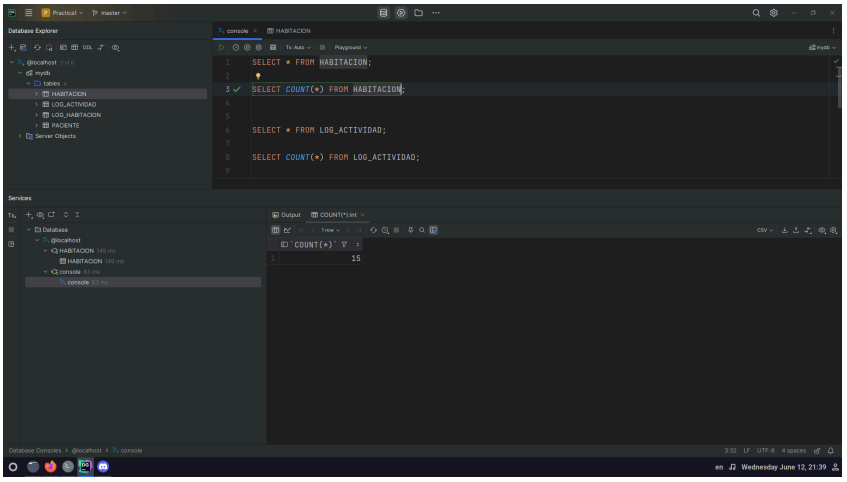
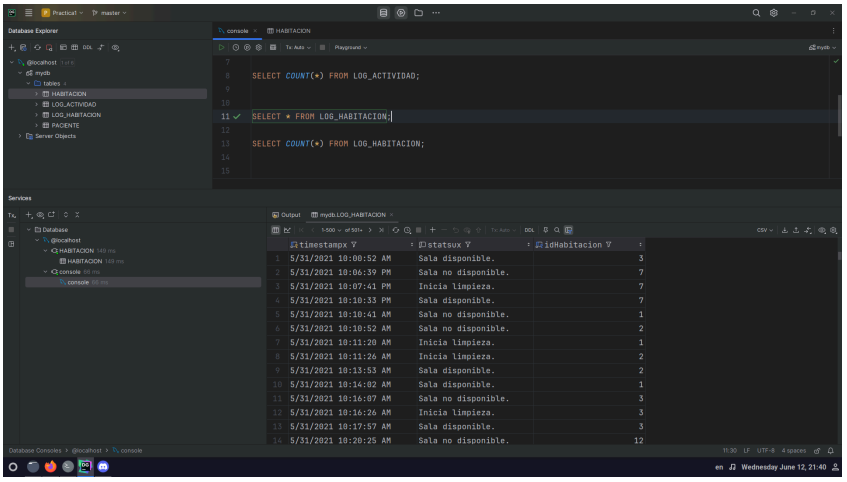
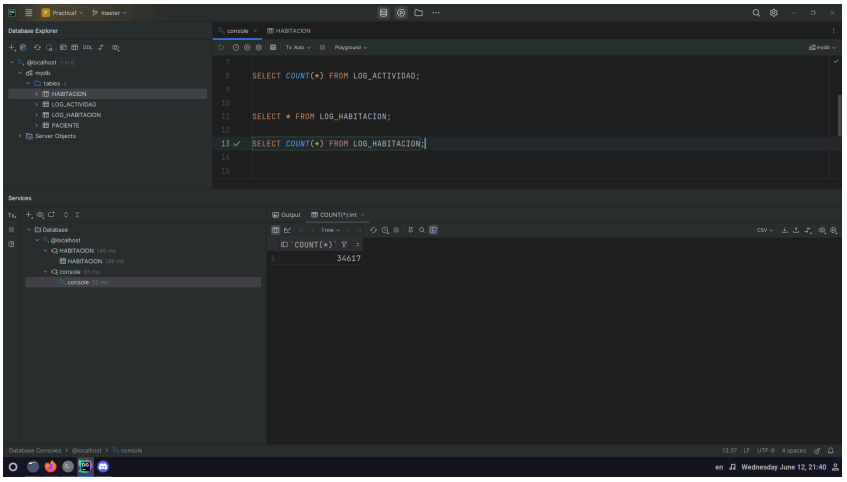
Tabla	Acción	Imagen
Pacientes	SELECT *	
	SELECT COUNT (*)	
Habitaciones	SELECT *	

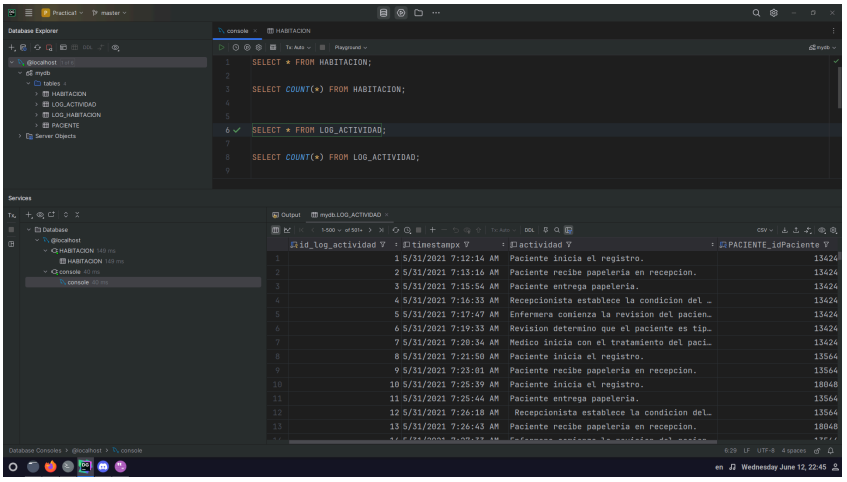
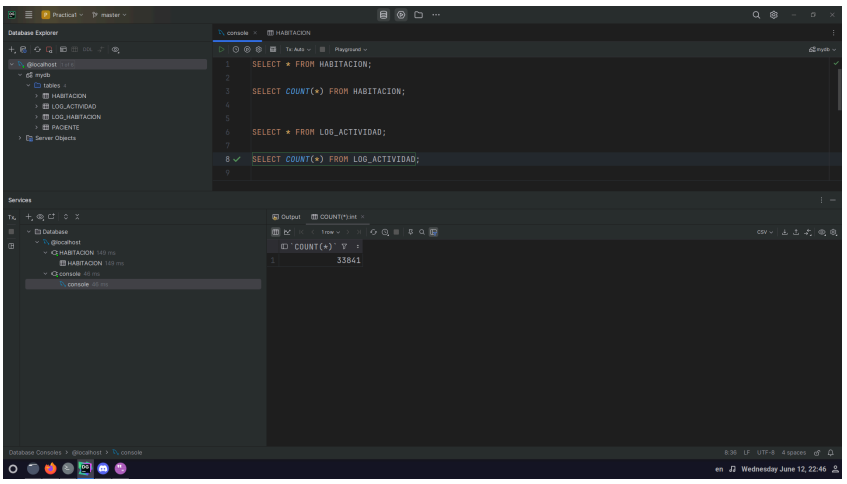
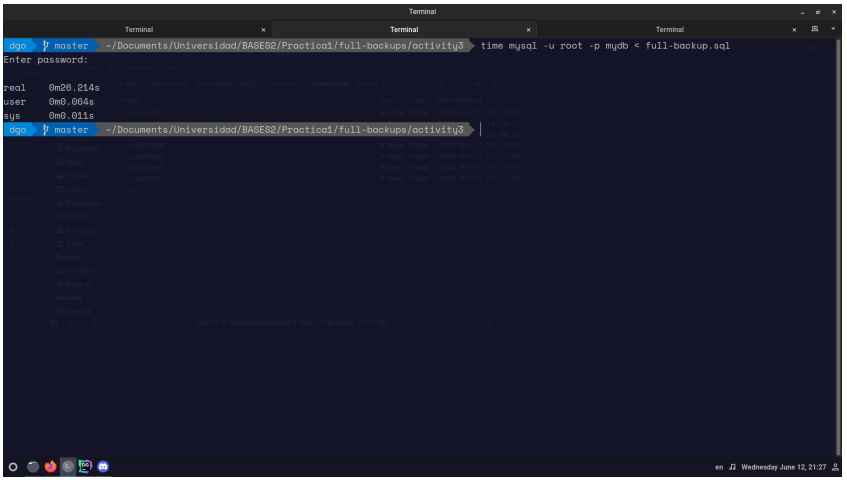
	SELECT COUNT (*)	
Log Habitaciones	SELECT *	
	SELECT COUNT (*)	

Log Actividades	SELECT *	
	SELECT COUNT (*)	
---	Restauración	

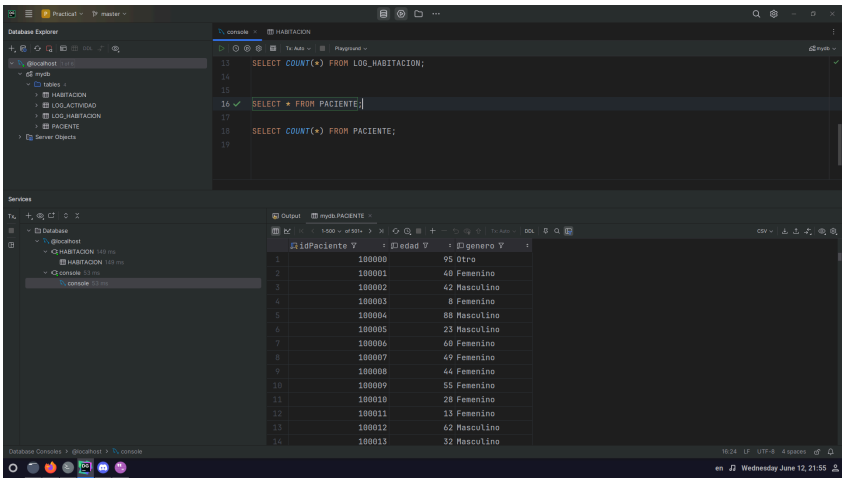
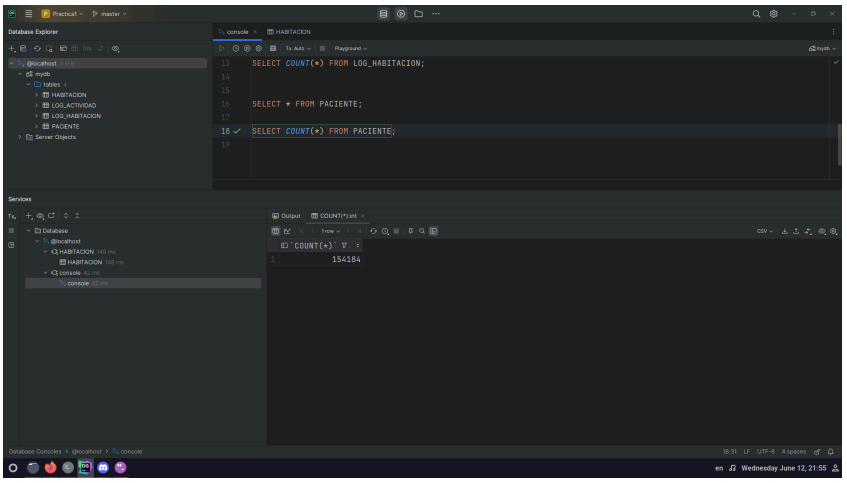
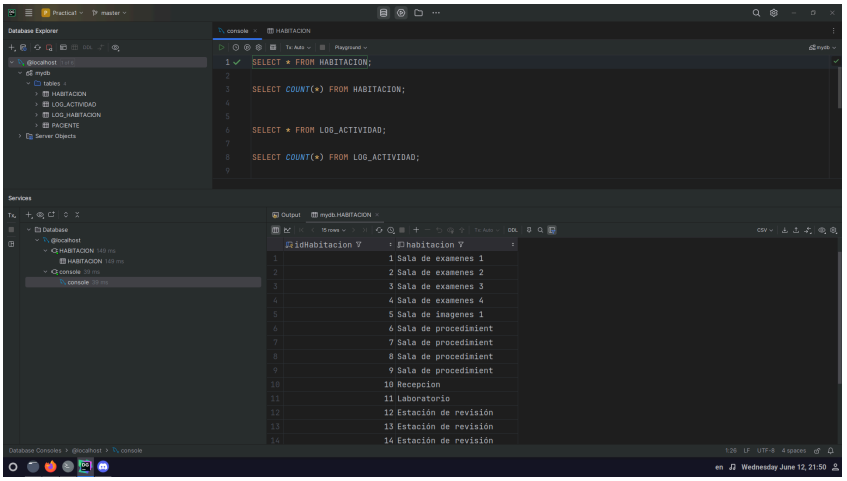
Actividad 8

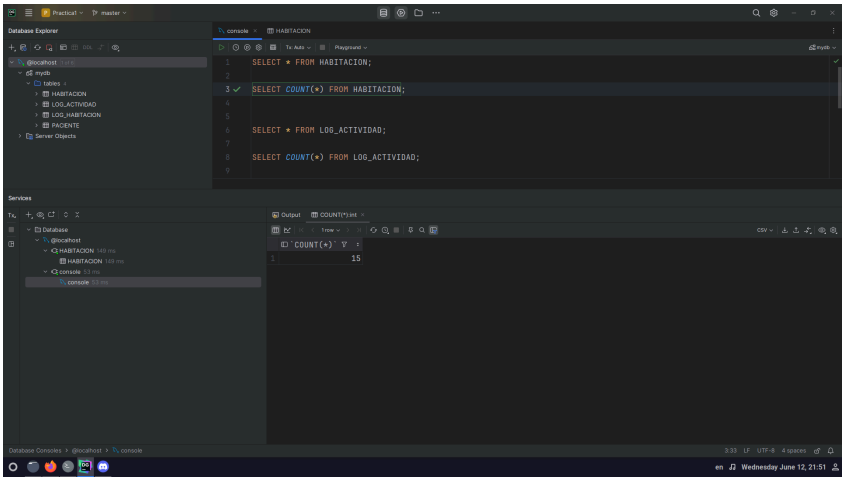
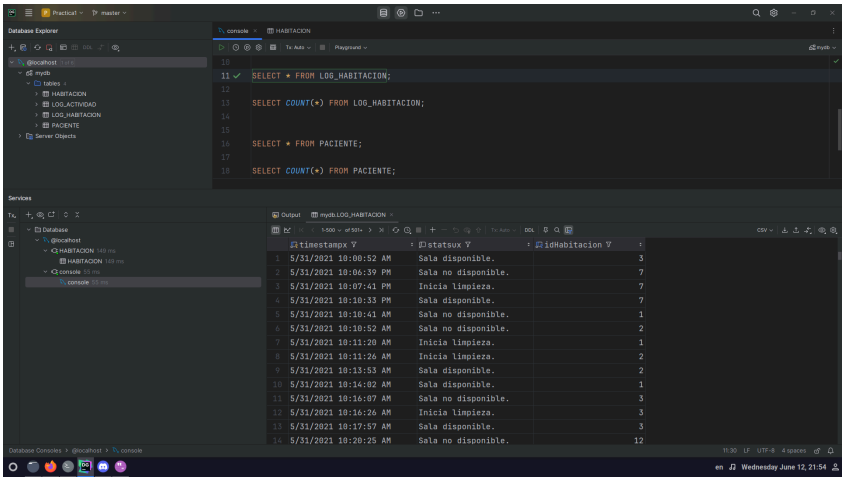
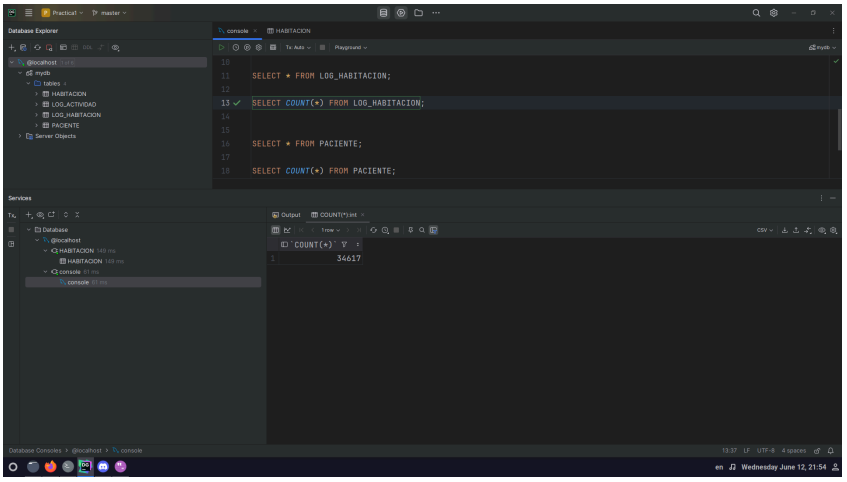
Tabla	Acción	Imagen
Pacientes	SELECT *	
	SELECT COUNT (*)	
Habitaciones	SELECT *	

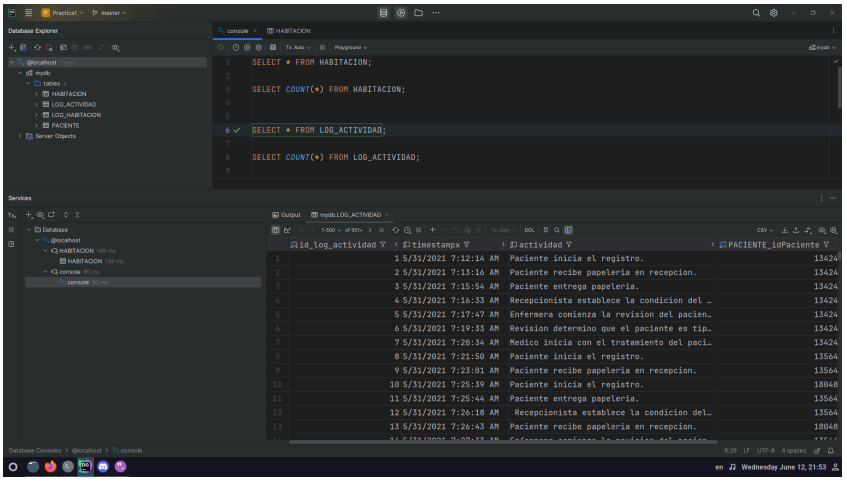
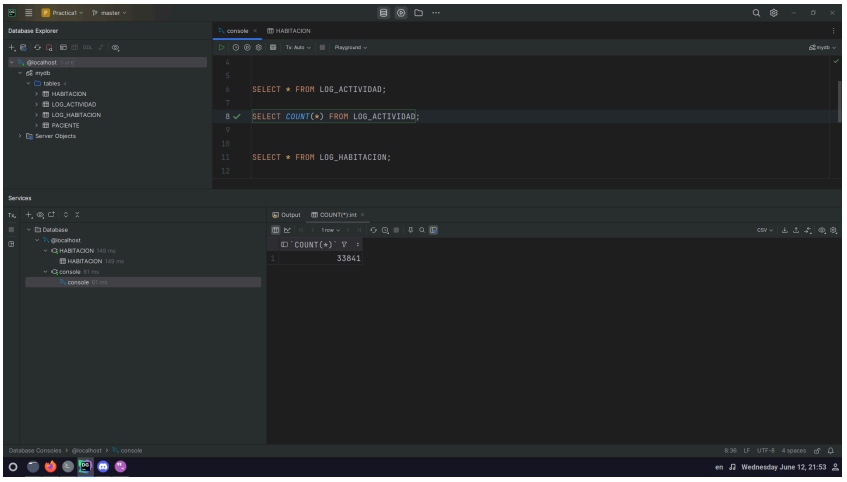
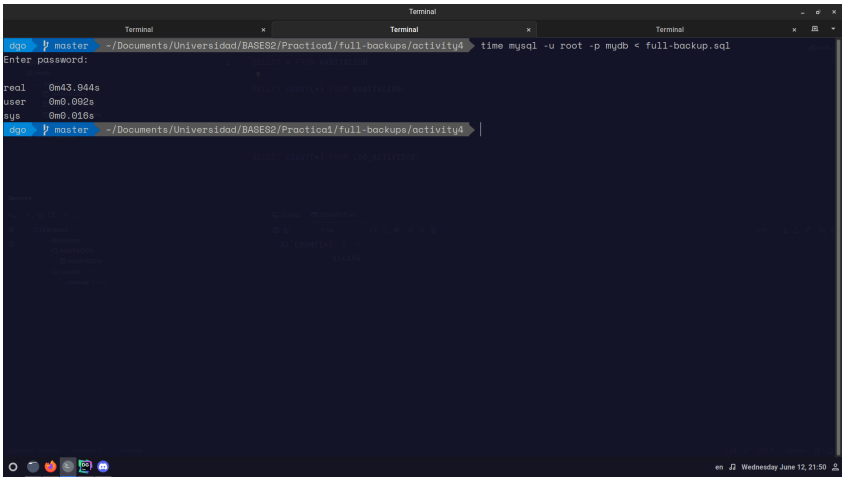
	SELECT COUNT (*)	
Log Habitaciones	SELECT *	
	SELECT COUNT (*)	

Log Actividades	SELECT *	
	SELECT COUNT (*)	
---	Restauración	

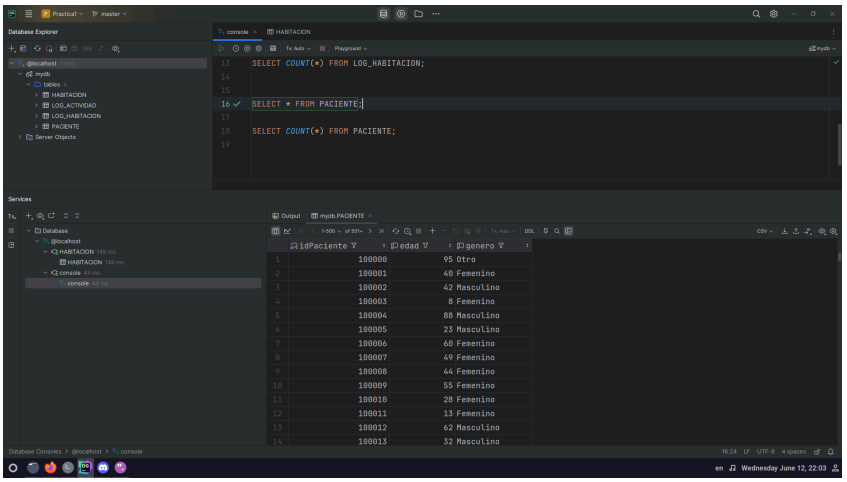
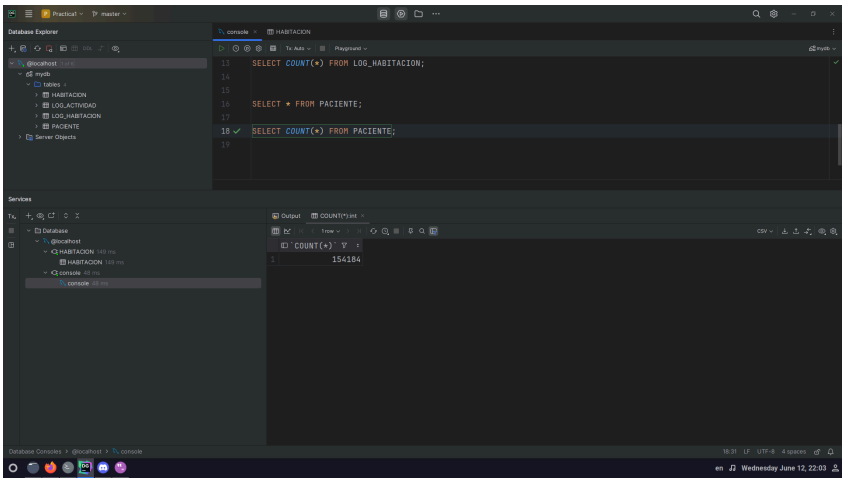
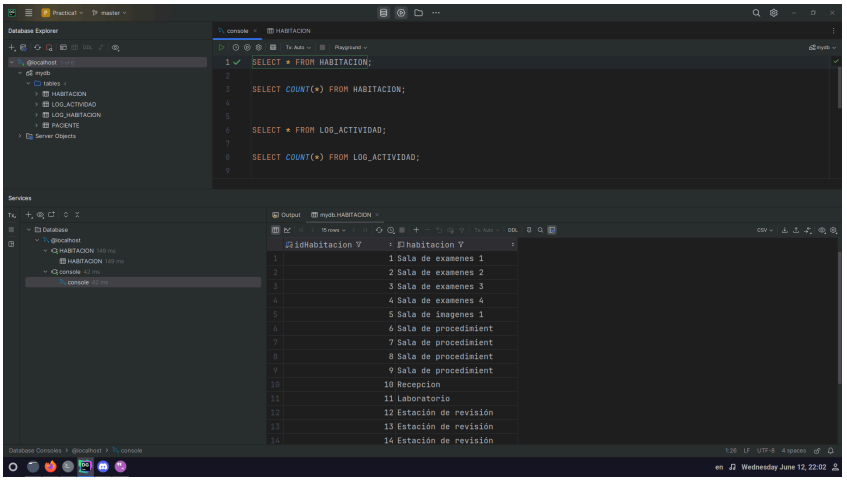
Actividad 9

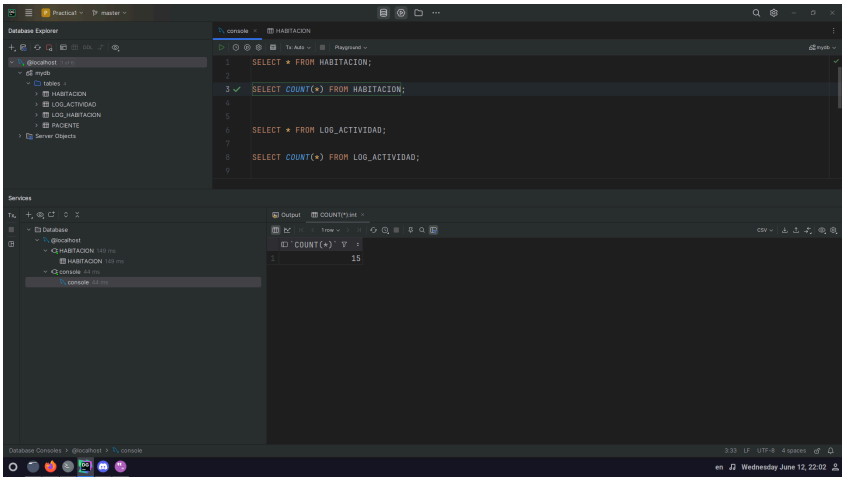
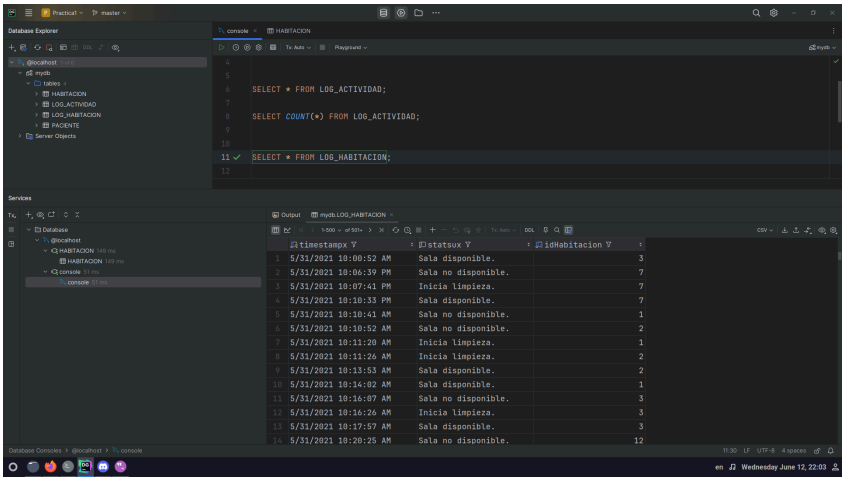
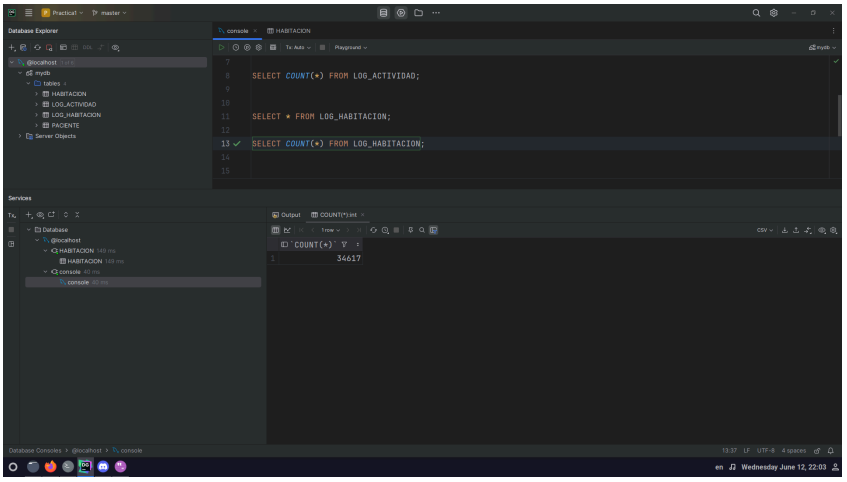
Tabla	Acción	Imagen
Pacientes	SELECT *	
	SELECT COUNT (*)	
Habitaciones	SELECT *	

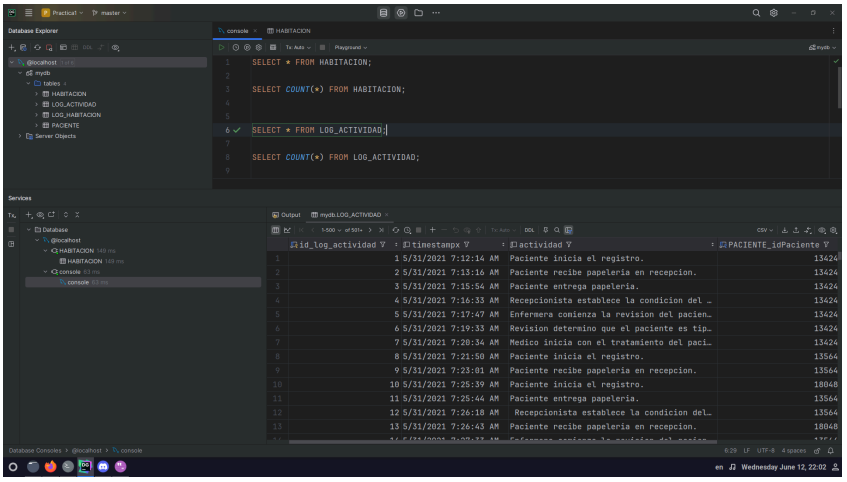
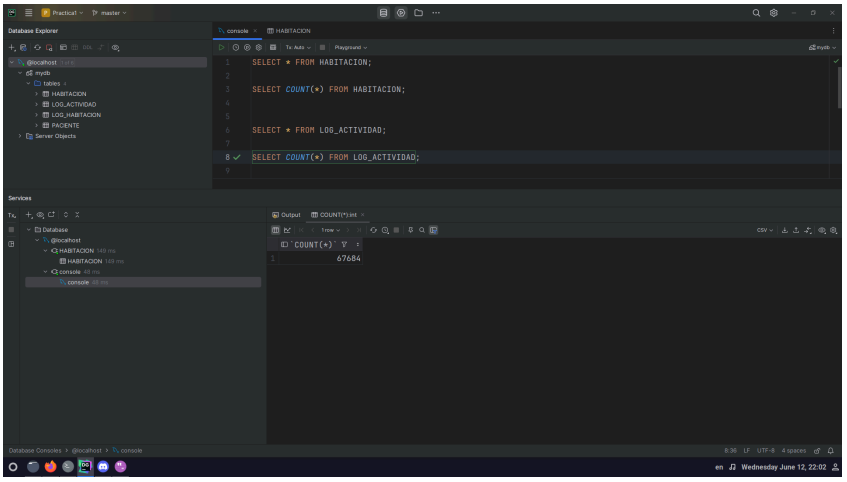
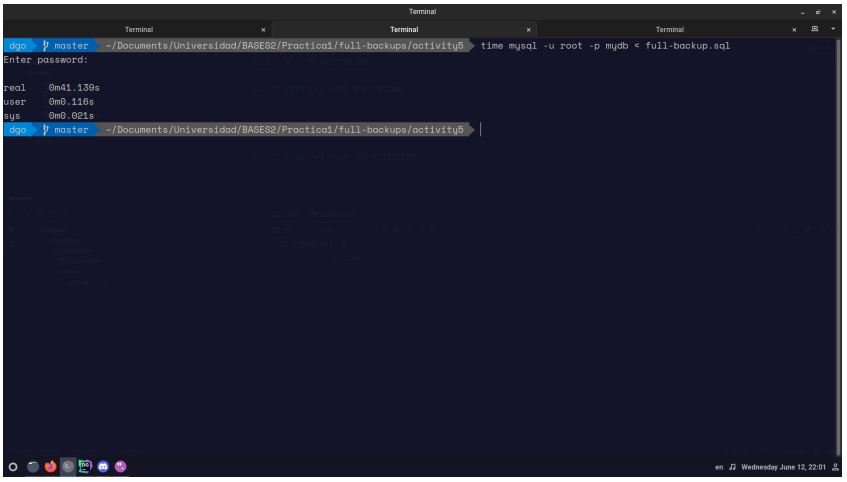
	SELECT COUNT (*)	
Log Habitaciones	SELECT *	
	SELECT COUNT (*)	

Log Actividades	SELECT *	
	SELECT COUNT (*)	
---	Restauración	

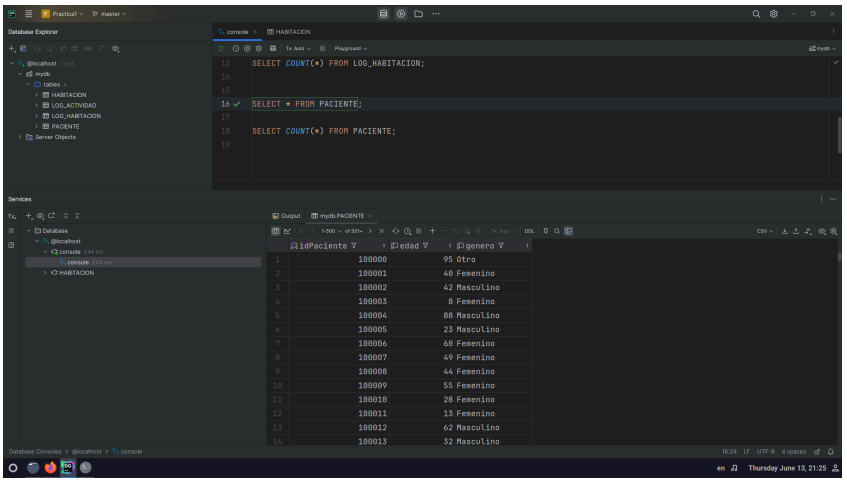
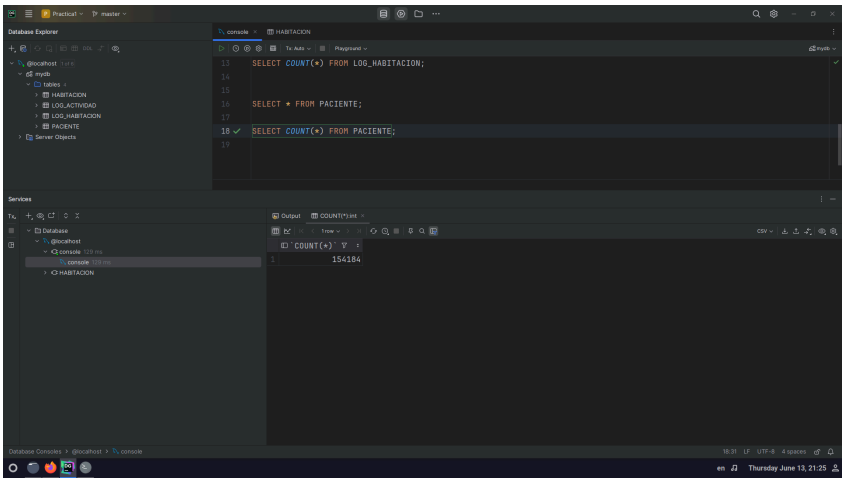
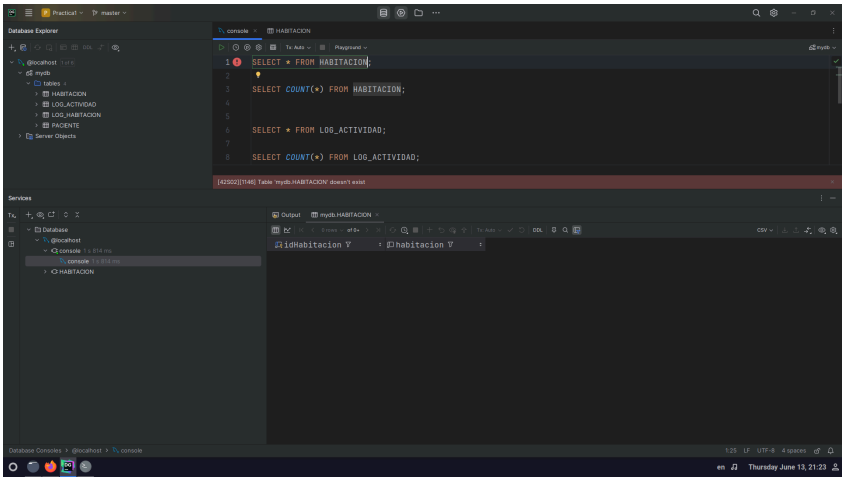
Actividad 10

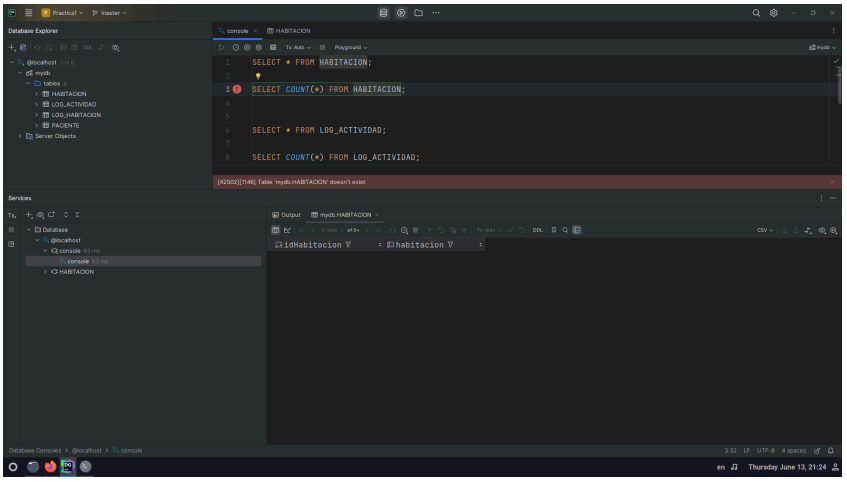
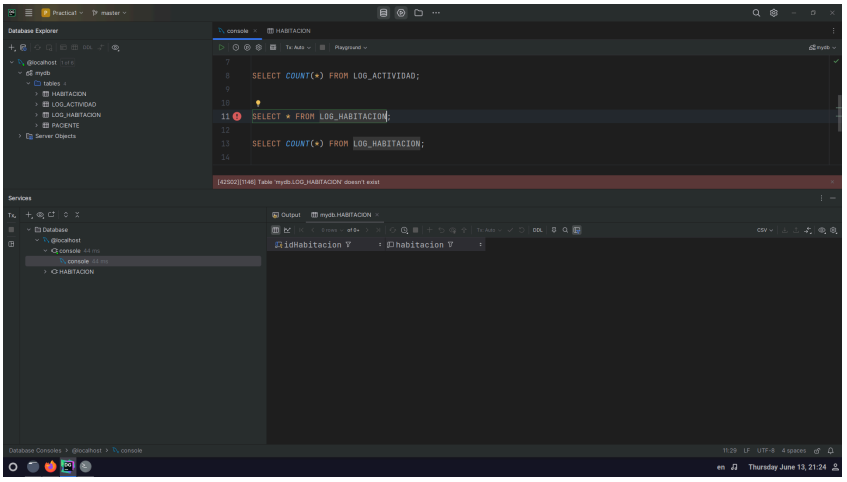
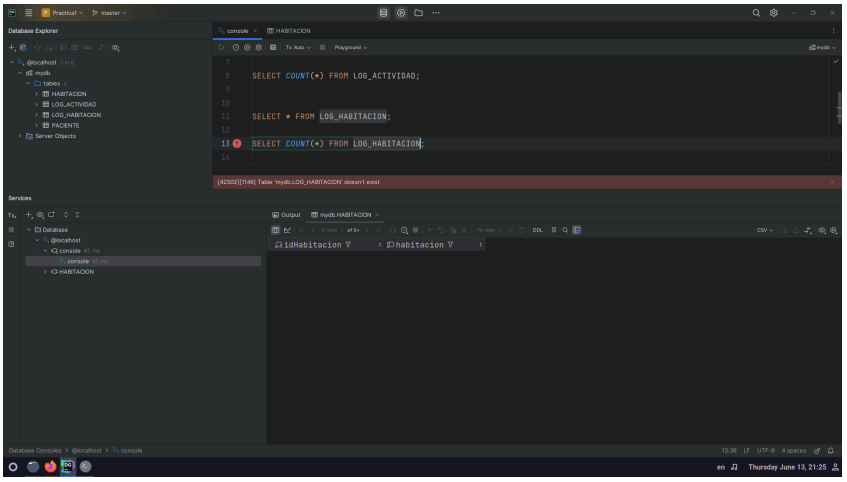
Tabla	Acción	Imagen
Pacientes	SELECT *	
	SELECT COUNT (*)	
Habitaciones	SELECT *	

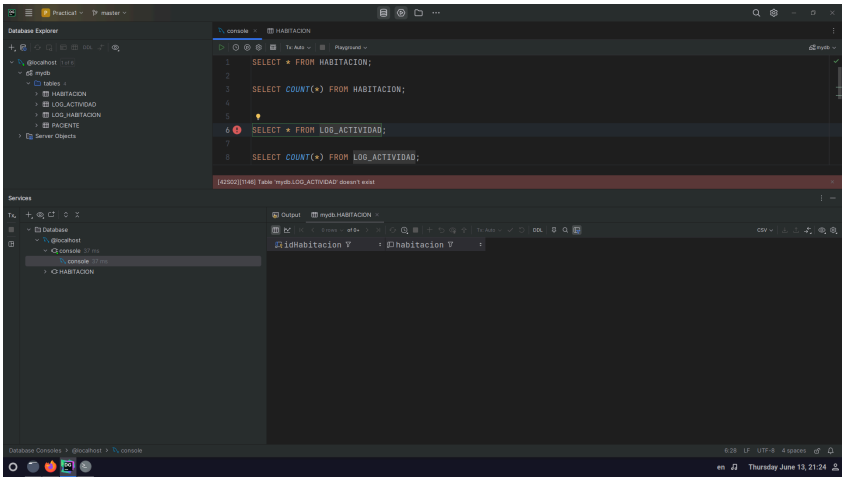
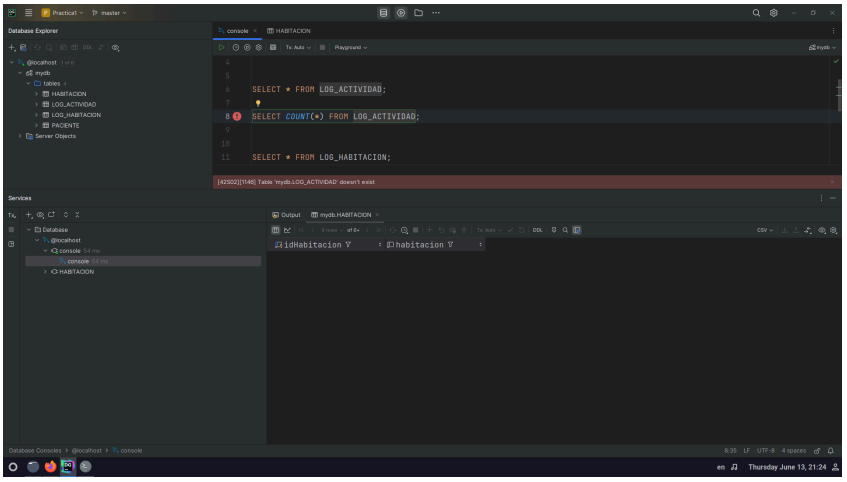
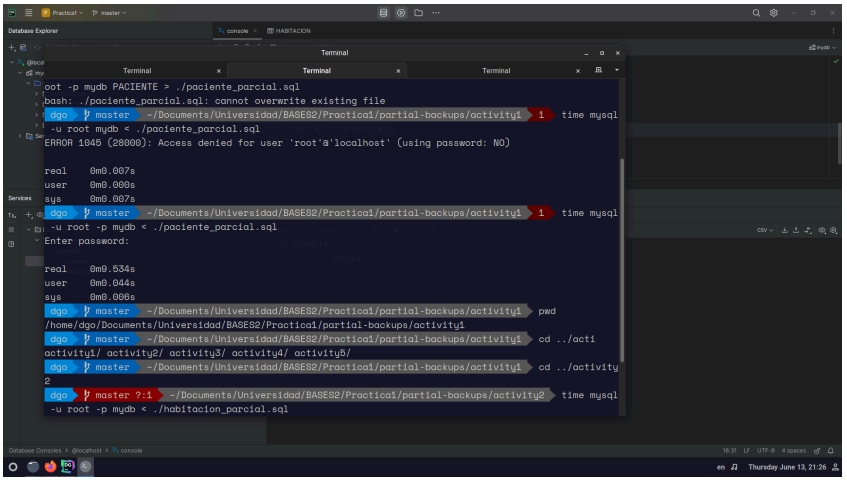
	SELECT COUNT (*)	
Log Habitaciones	SELECT *	
	SELECT COUNT (*)	

Log Actividades	SELECT *	
	SELECT COUNT (*)	
---	Restauración	

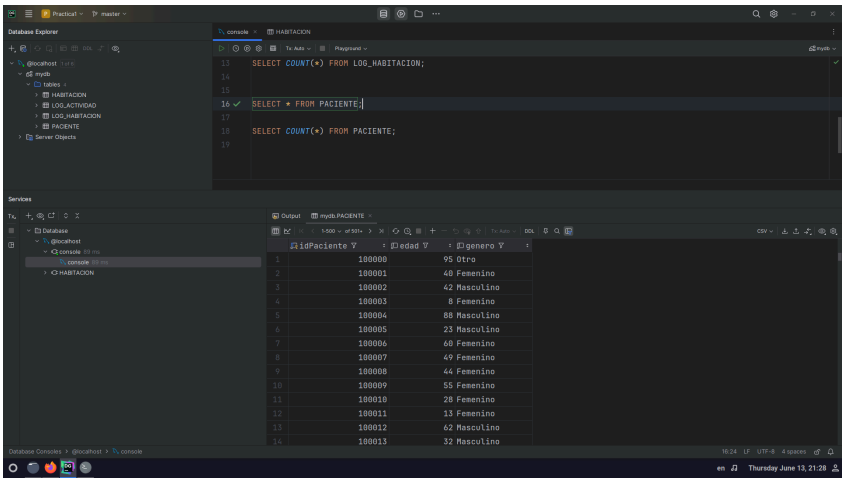
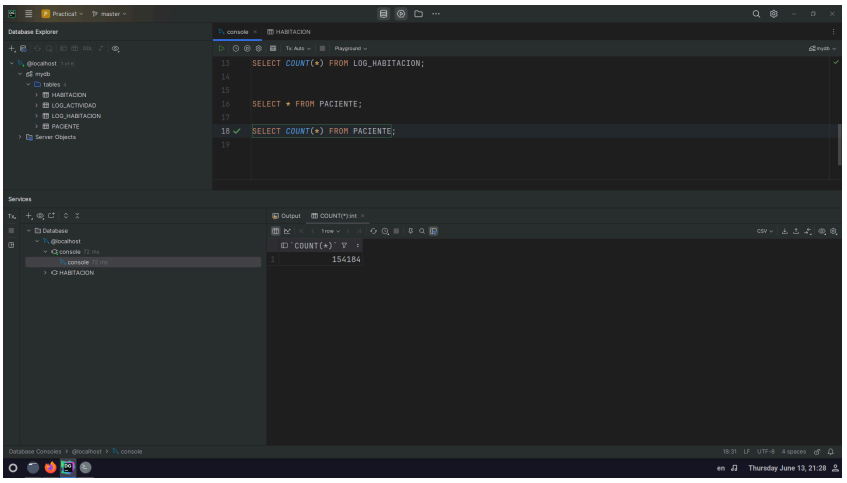
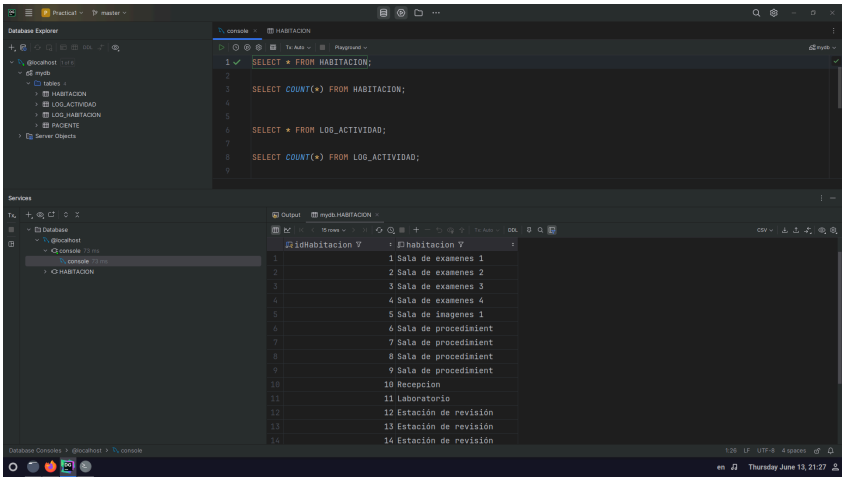
Actividad 11

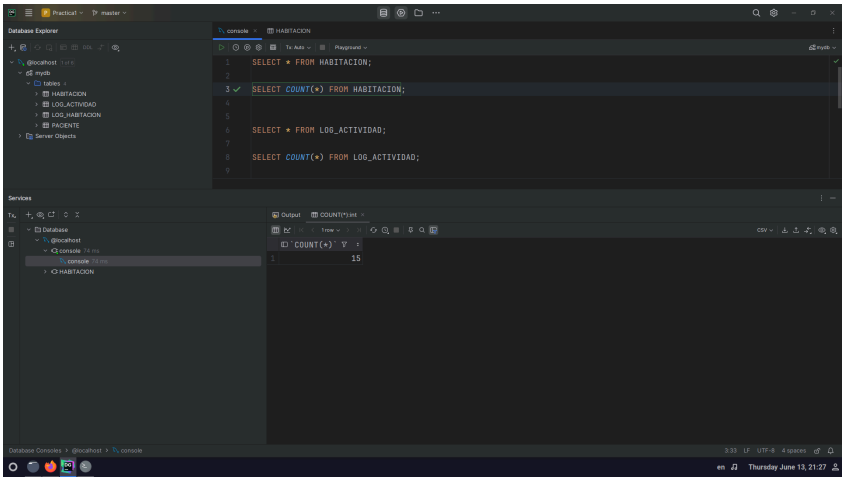
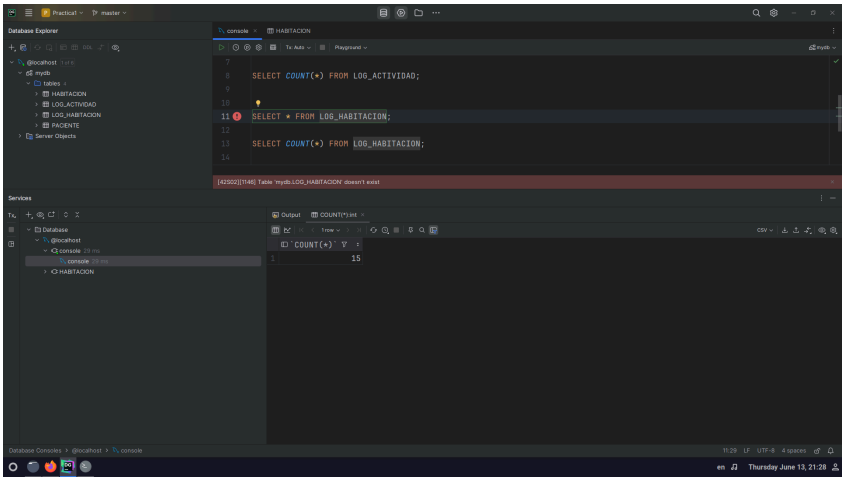
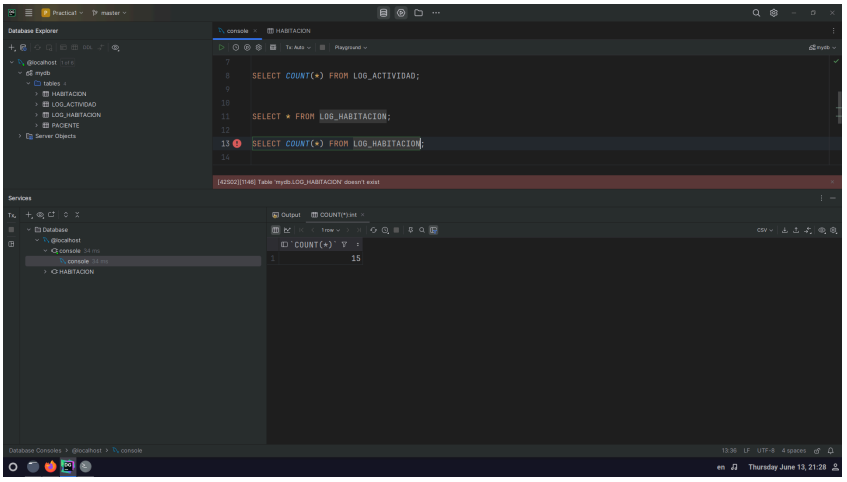
Tabla	Acción	Imagen
Pacientes	SELECT *	
	SELECT COUNT (*)	
Habitaciones	SELECT *	

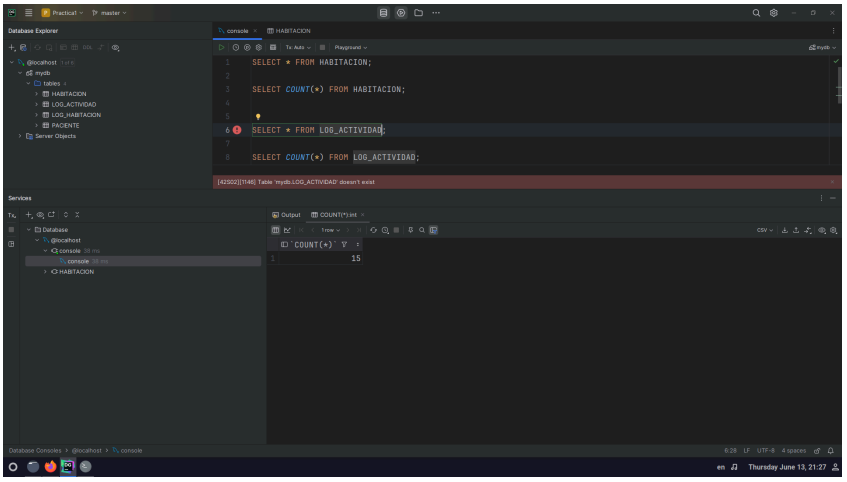
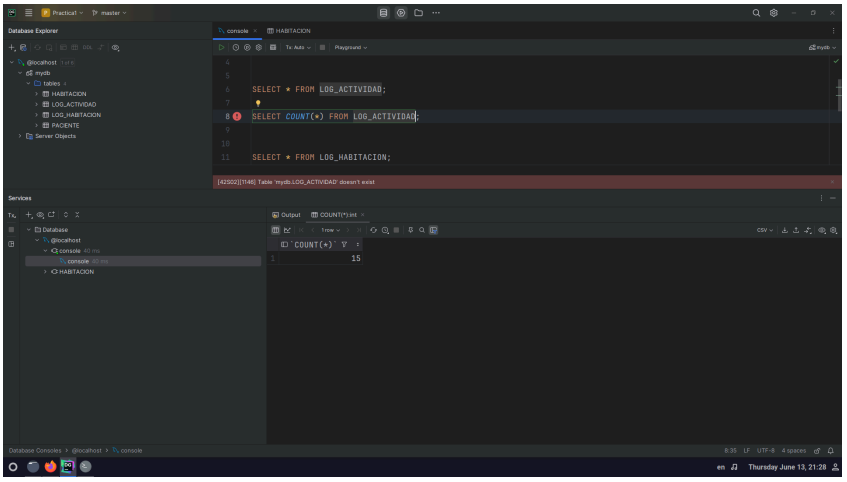
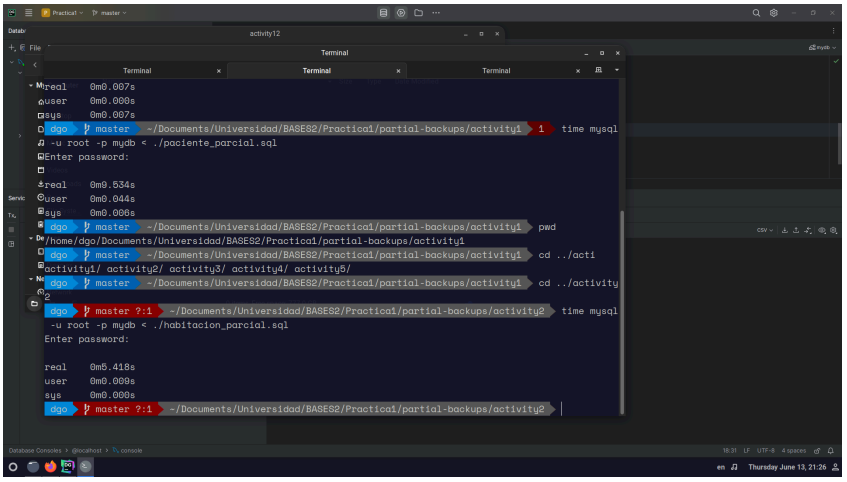
	SELECT COUNT (*)	
Log Habitaciones	SELECT *	
	SELECT COUNT (*)	

Log Actividades	SELECT *	
	SELECT COUNT (*)	
---	Restauración	

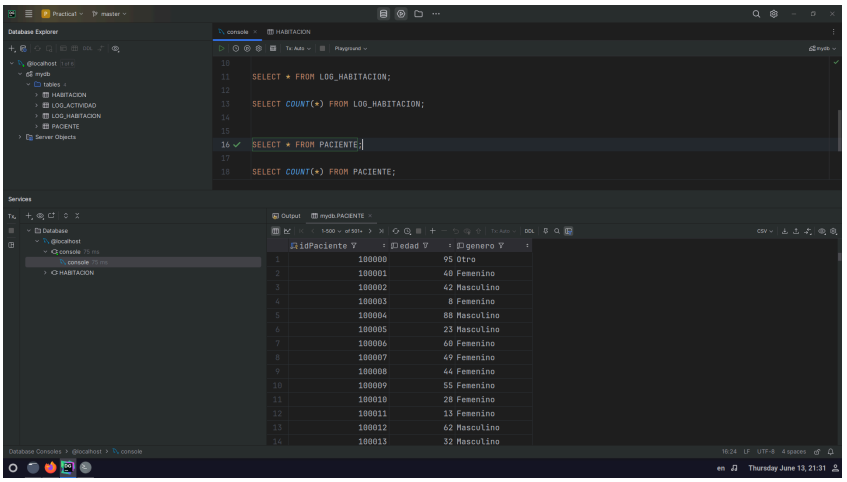
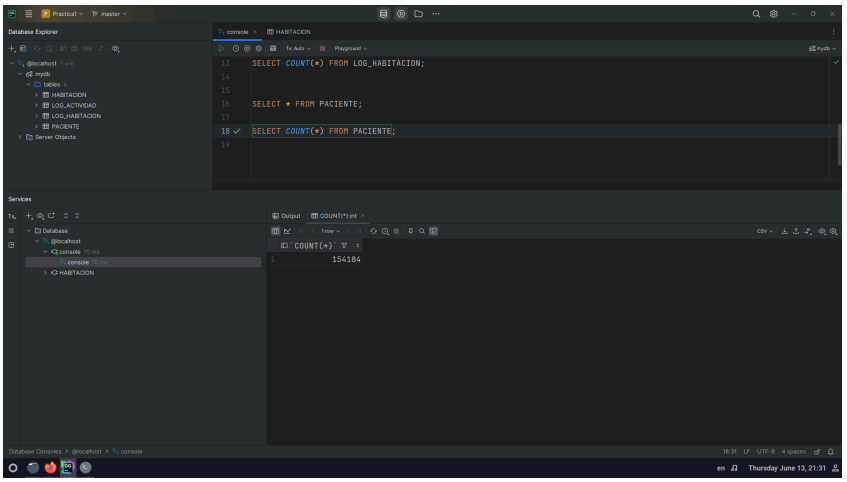
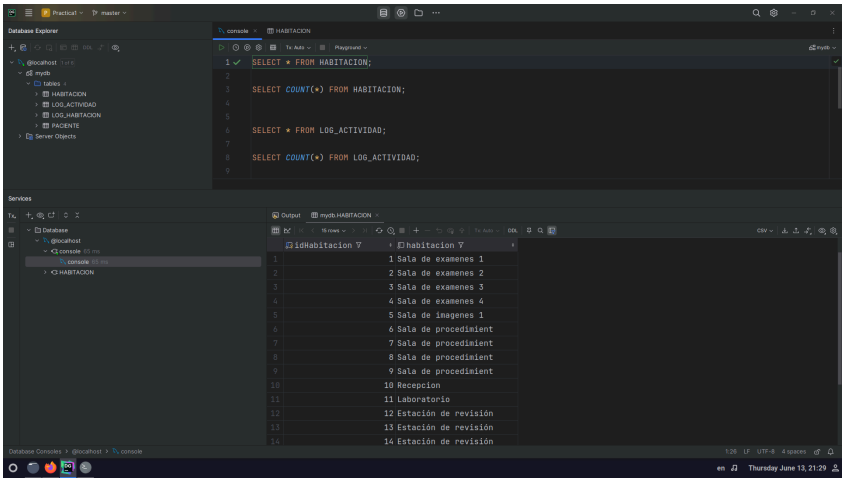
Actividad 12

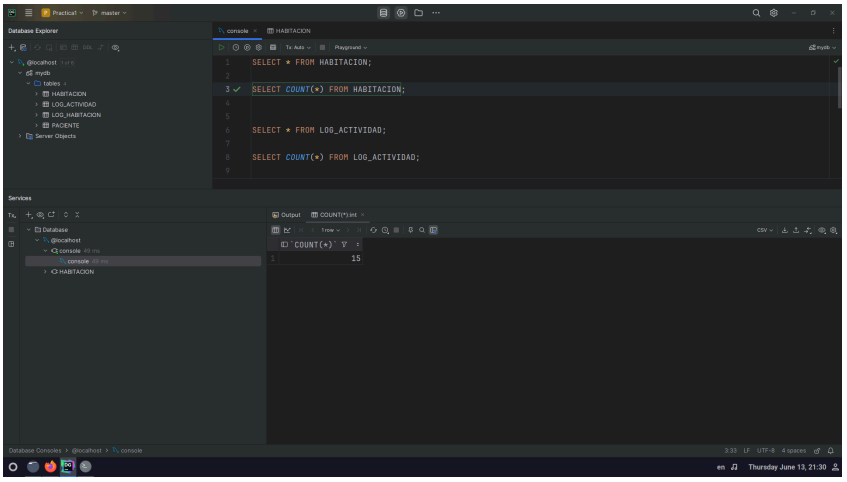
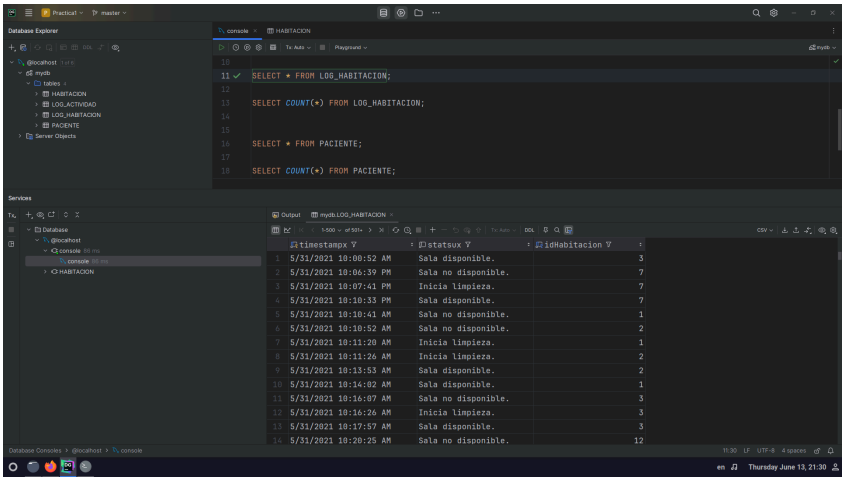
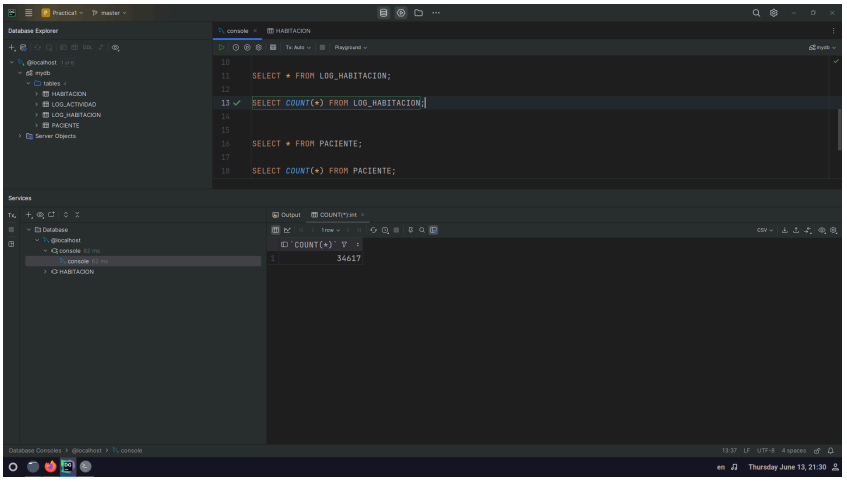
Tabla	Acción	Imagen
Pacientes	SELECT *	
	SELECT COUNT (*)	
Habitaciones	SELECT *	

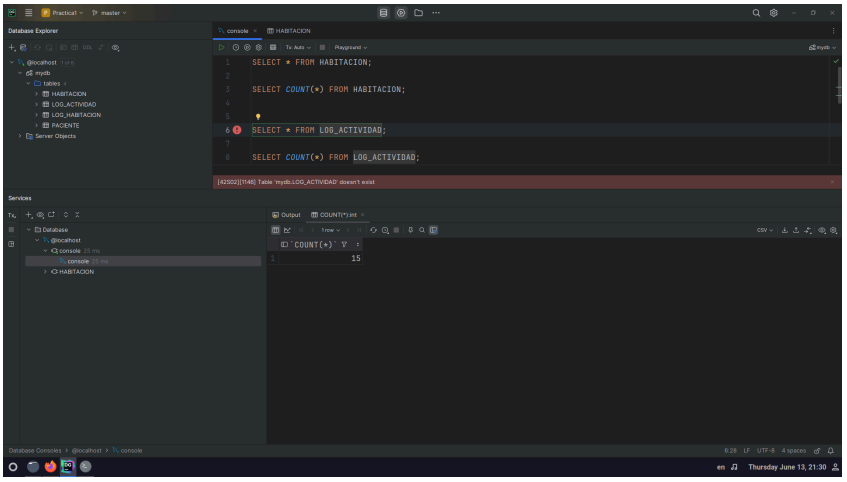
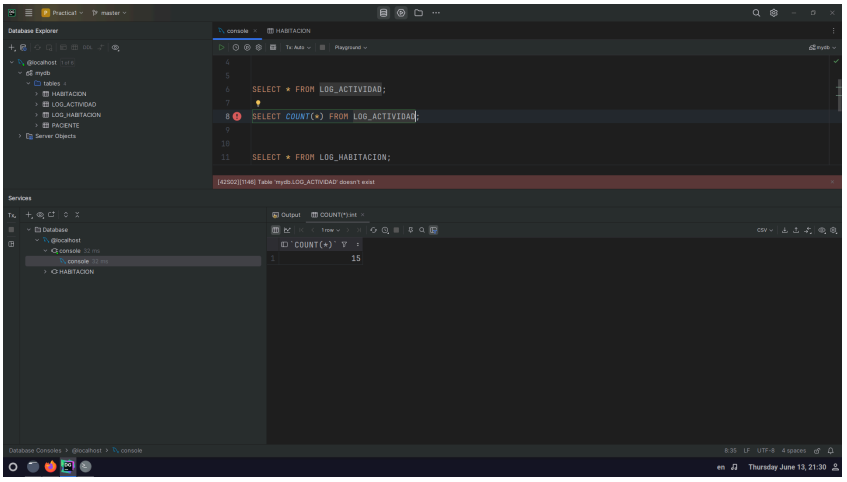
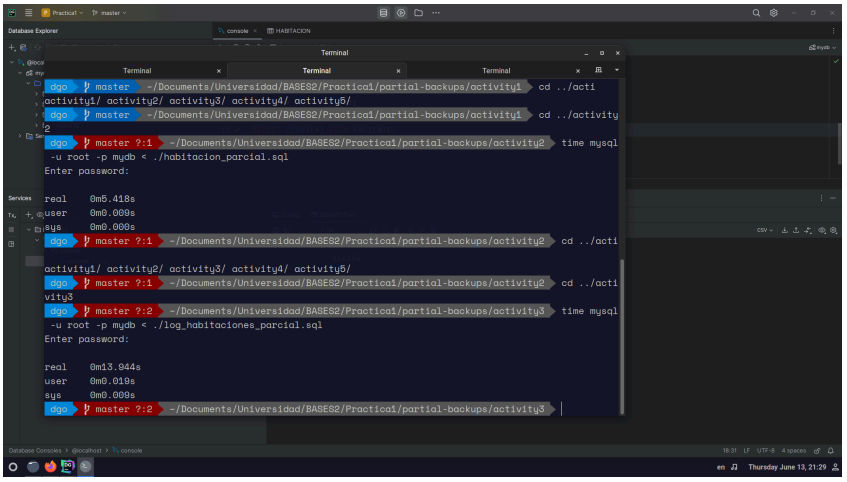
	SELECT COUNT (*)	
Log Habitaciones	SELECT *	
	SELECT COUNT (*)	

Log Actividades	SELECT *	
	SELECT COUNT (*)	
---	Restauración	

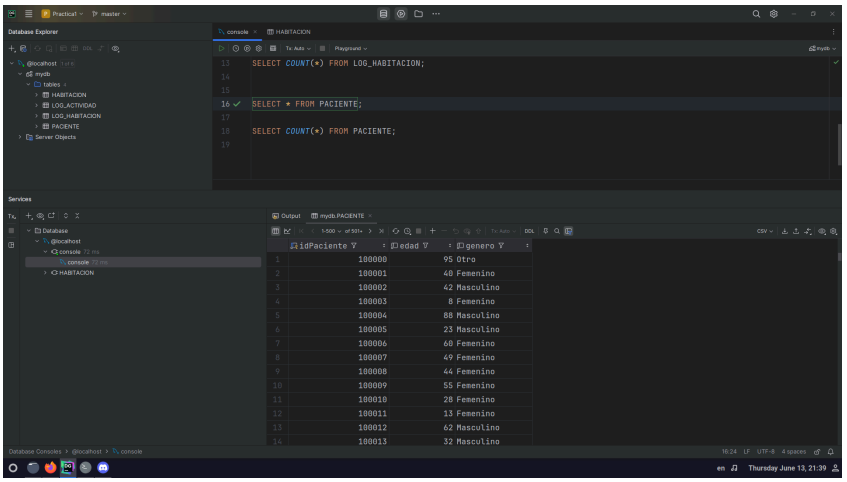
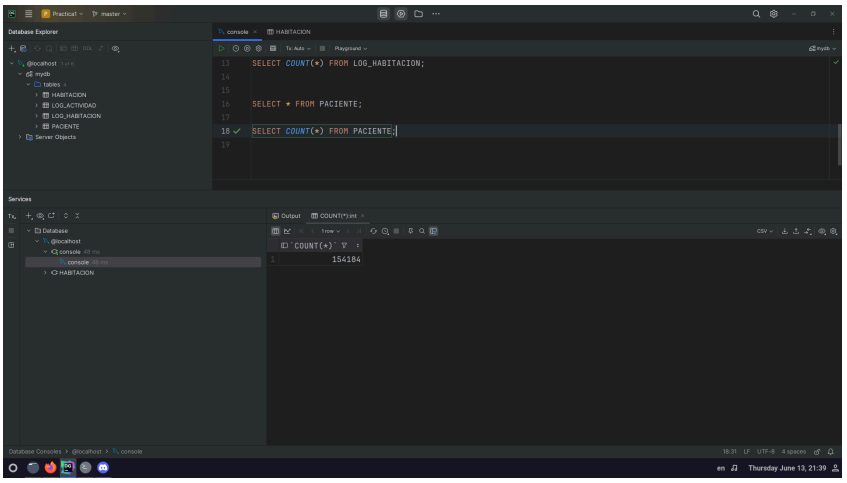
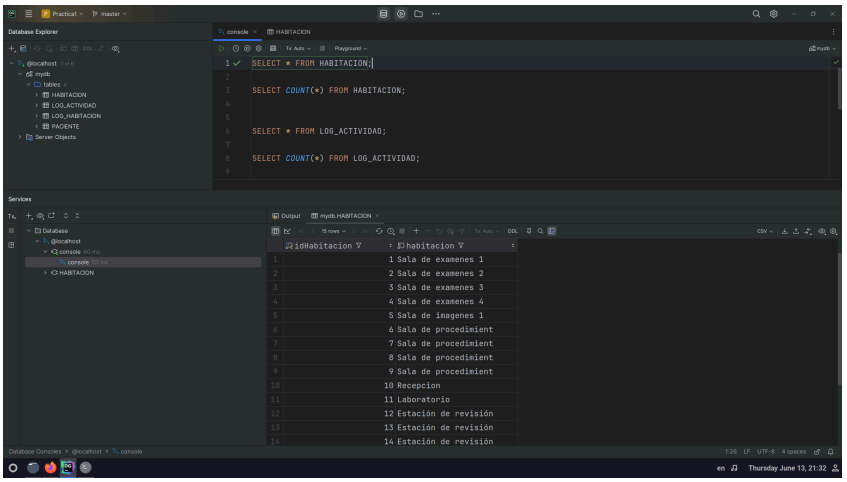
Actividad 13

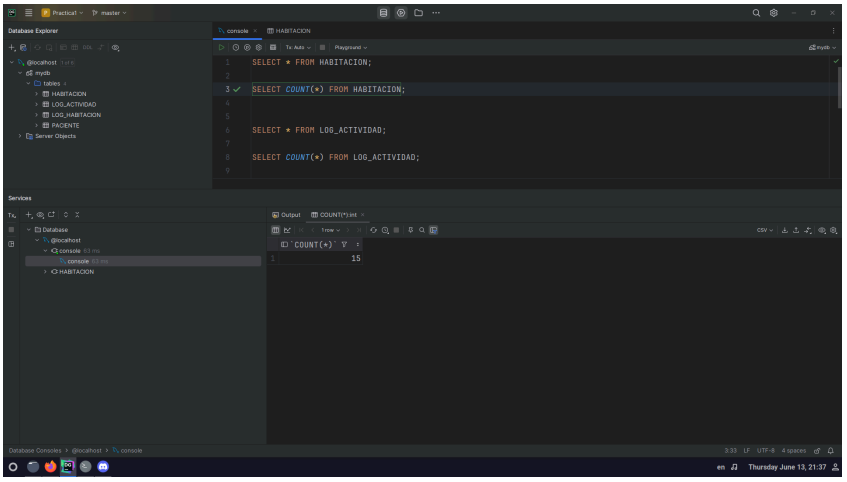
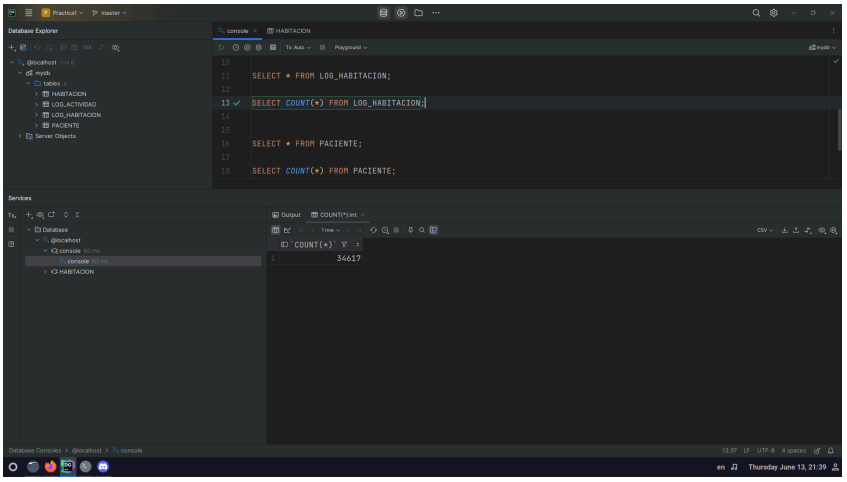
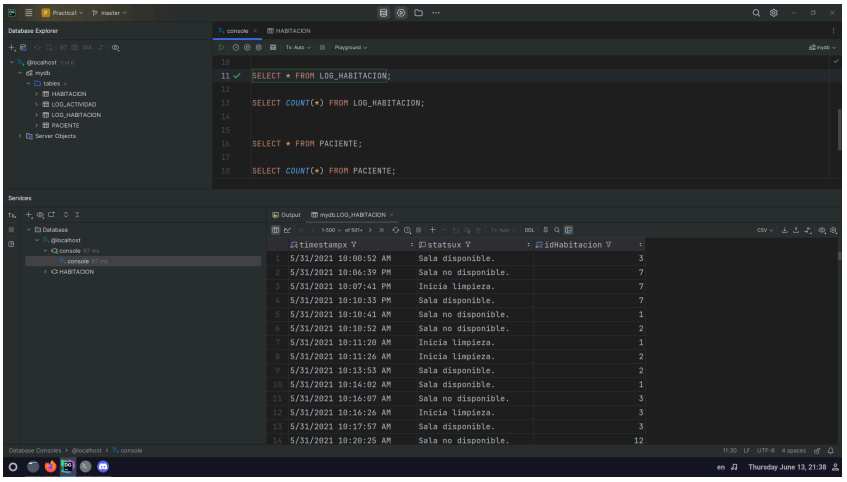
Tabla	Acción	Imagen
Pacientes	SELECT *	
	SELECT COUNT (*)	
Habitaciones	SELECT *	

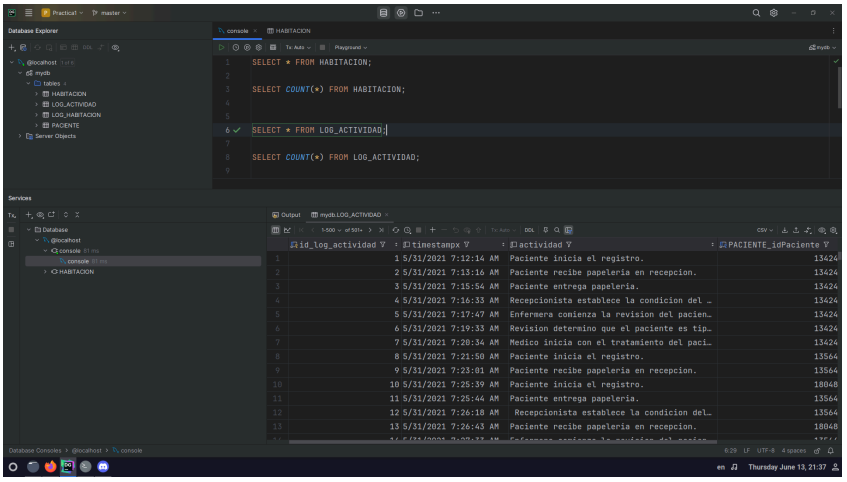
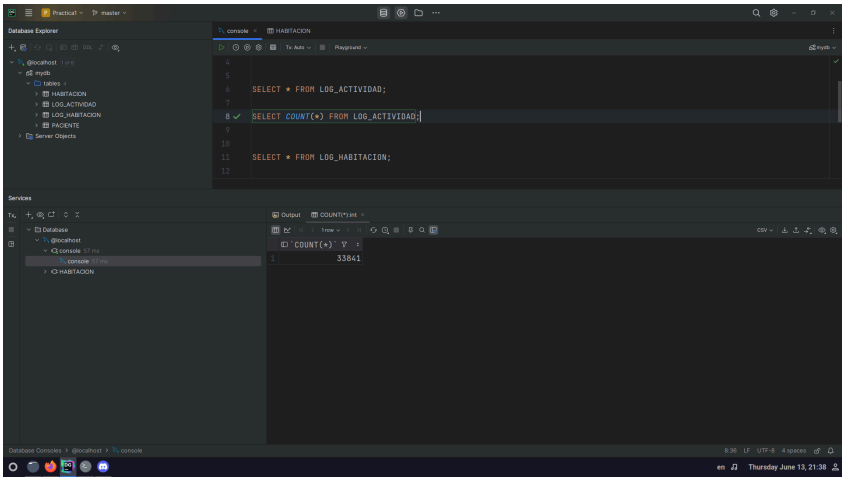
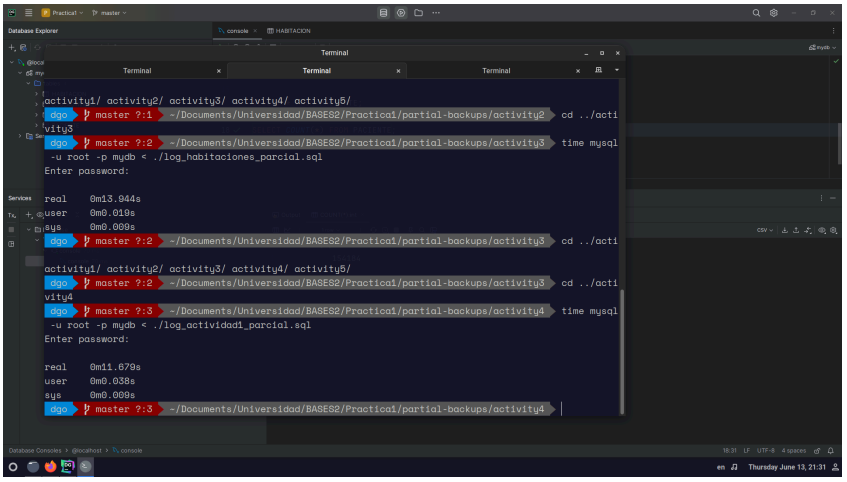
	SELECT COUNT (*)	
Log Habitaciones	SELECT *	
	SELECT COUNT (*)	

Log Actividades	SELECT *	
	SELECT COUNT (*)	
---	Restauración	

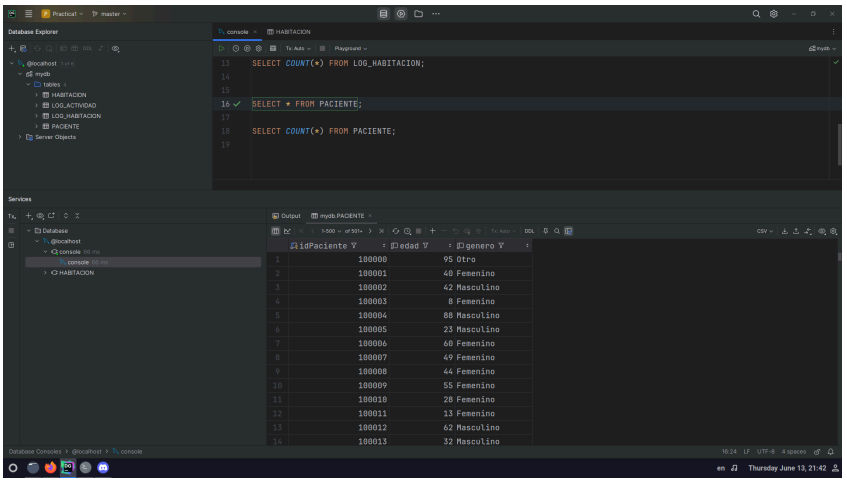
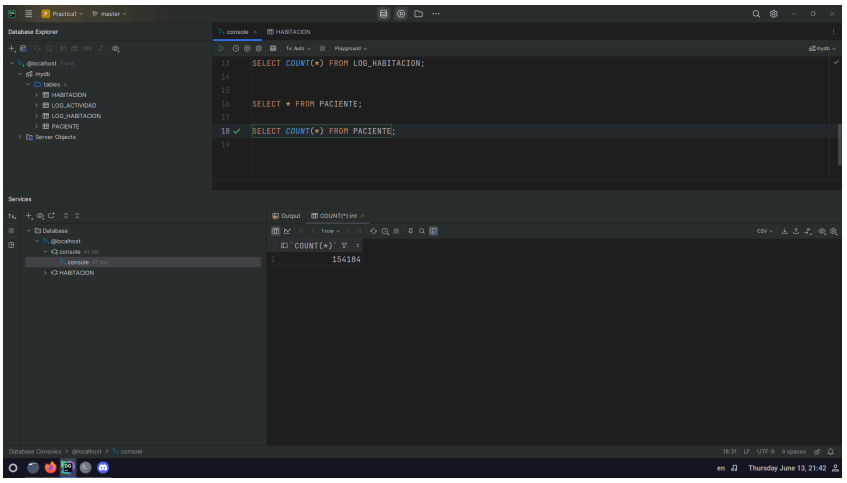
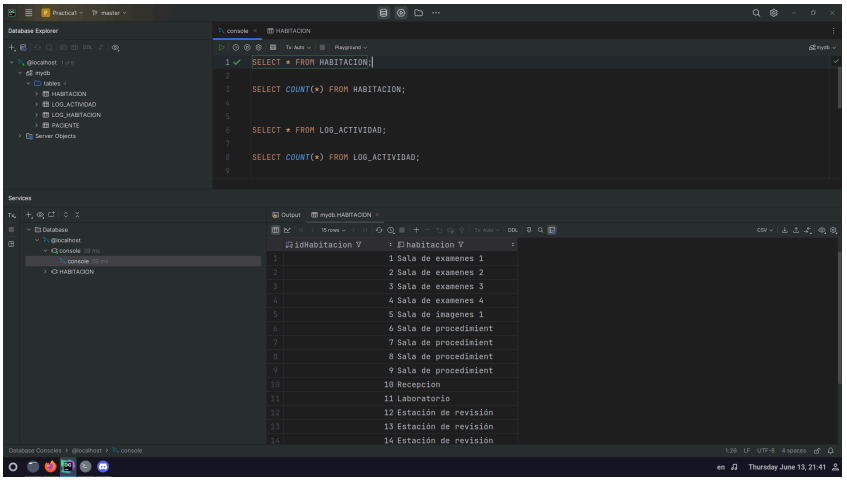
Actividad 14

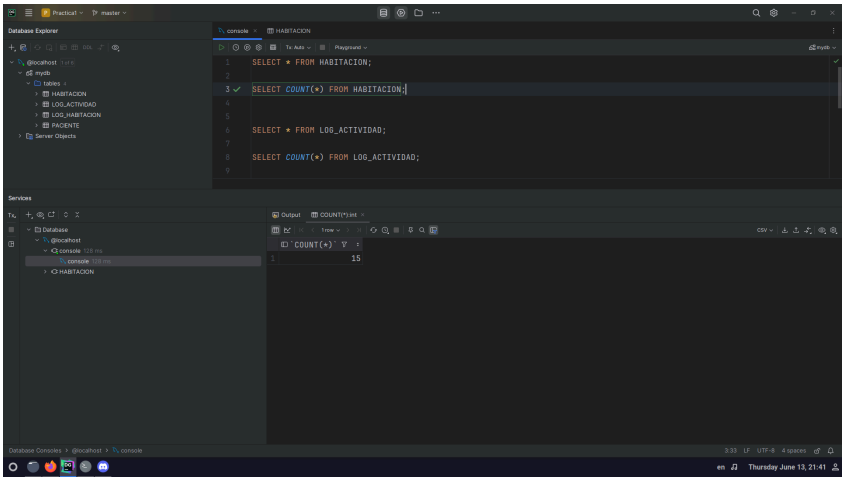
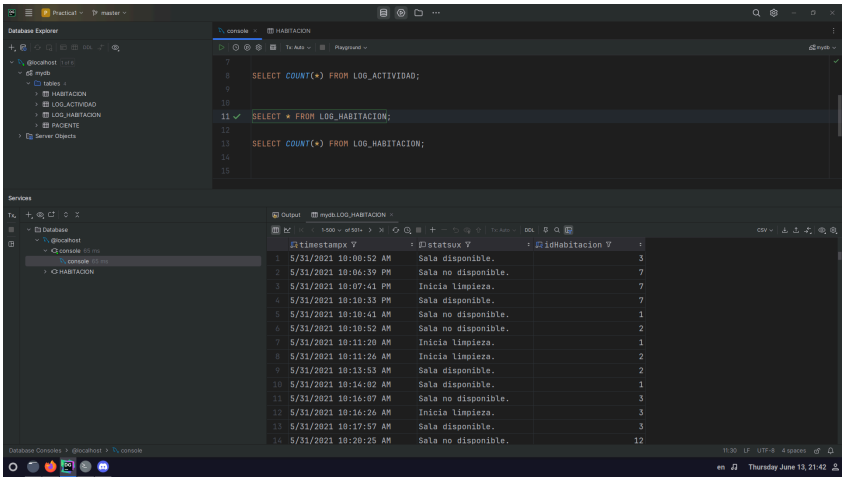
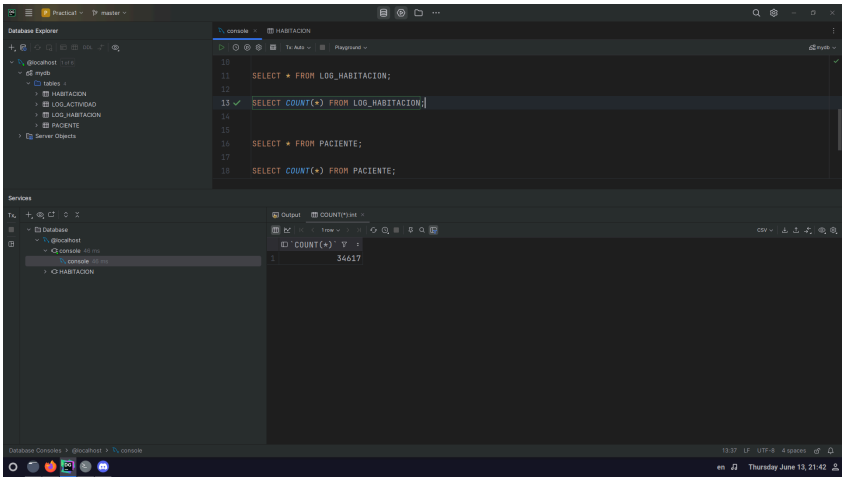
Tabla	Acción	Imagen
Pacientes	SELECT *	
	SELECT COUNT (*)	
Habitaciones	SELECT *	

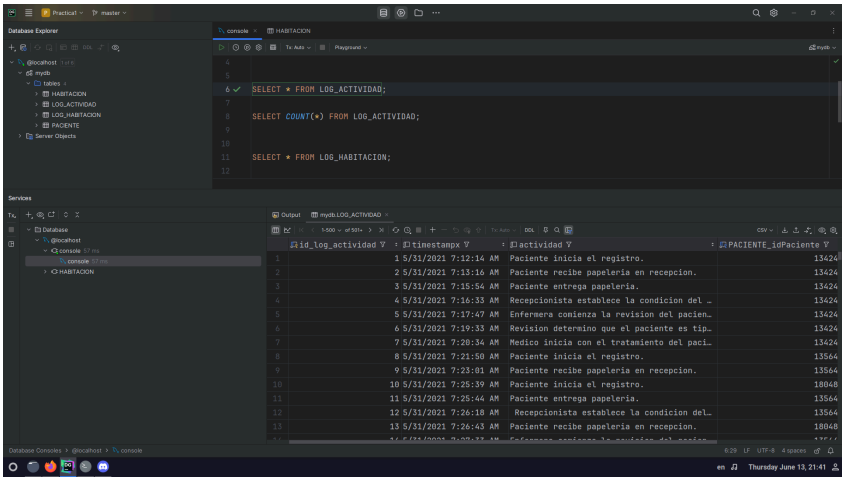
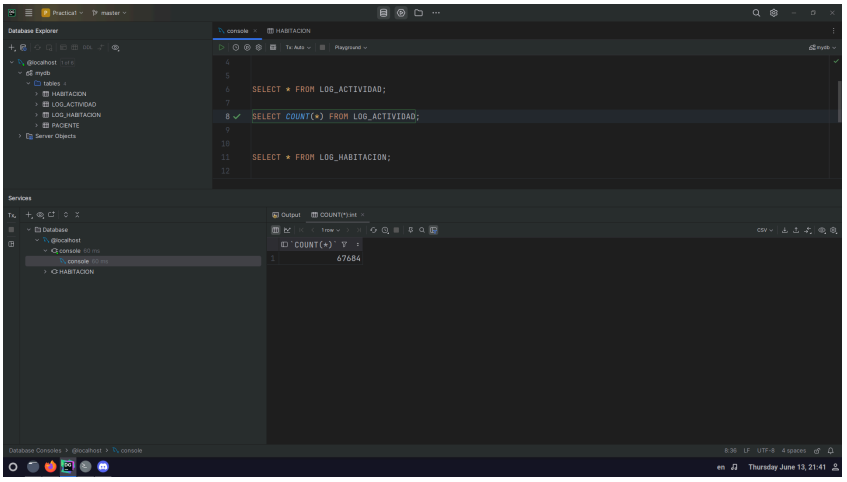
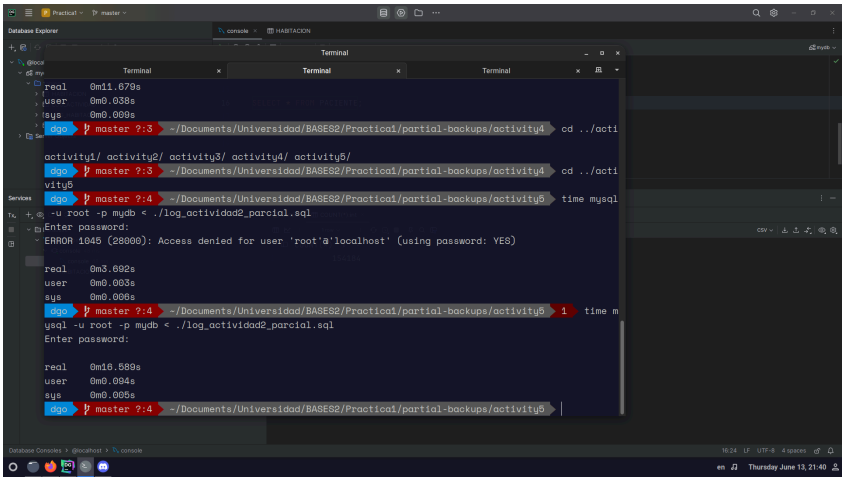
	SELECT COUNT (*)	
Log Habitaciones	SELECT *	
	SELECT COUNT (*)	

Log Actividades	SELECT *	
	SELECT COUNT (*)	
---	Restauración	

Actividad 15

Tabla	Acción	Imagen
Pacientes	SELECT *	
	SELECT COUNT (*)	
Habitaciones	SELECT *	

	SELECT COUNT (*)	
Log Habitaciones	SELECT *	
	SELECT COUNT (*)	

Log Actividades	SELECT *	
	SELECT COUNT (*)	
---	Restauración	

Análisis de los resultados obtenidos

Comparación de Tiempos y Recomendación

1. **Tiempo de Restauración:**
    - **Backups Completos:** El tiempo de restauración fue considerablemente mayor hacia el final del periodo de cinco días debido al volumen total de datos.
    - **Backups Incrementales:** Aunque implican más pasos, cada etapa fue rápida, resultando en un tiempo total de restauración menor en comparación con los backups completos.
2. **Integridad de los Datos:**
    - Ambos métodos de restauración mantuvieron la integridad y consistencia de los datos, verificadas a través de las capturas de `SELECT *` y `SELECT COUNT(*)`.
3. **Recomendación:**
    - **Para Volúmenes Grandes de Datos:** Se recomienda utilizar una estrategia mixta de backups completos e incrementales. Realizar un backup completo semanal seguido de backups incrementales diarios puede optimizar el uso del espacio y el tiempo de restauración.
    - **Para Escenarios Críticos:** En entornos donde la recuperación rápida es crucial, los backups incrementales permiten restaurar los datos de manera más eficiente, reduciendo el tiempo de inactividad.

Conclusiones

- Comprensión y diferenciación entre respaldos completos, incrementales y diferenciales, y cuándo usar cada uno según el tamaño de la base de datos y la frecuencia de cambios.
- Aprender a restaurar bases de datos desde diferentes tipos de respaldos, minimizando el tiempo de inactividad y pérdida de datos.
- Saber identificar cuándo implementar cada tipo de respaldo, diseñando estrategias efectivas basadas en tiempo, espacio y requisitos de recuperación.
- Crear estrategias de respaldo eficientes considerando factores clave como tiempo y espacio de almacenamiento.
- La importancia de contar con habilidades en la migración de datos usando herramientas y scripts para manejar grandes volúmenes de información.
- Entender la importancia de los respaldos para proteger los datos contra pérdidas accidentales y ataques.