```
df_week['weekly_ret'] = np.log(df_week['close']).diff()
df_week.head()
```

	close	weekly_ret
date		
2009-06-07	20.445700	NaN
2009-06-14	20.106860	-0.016712
2009-06-21	19.525140	-0.029358
2009-06-28	19.711440	0.009496
2009-07-05	20.258925	0.027396

```
# drop null rows
df_week.dropna(inplace=True)
```

```
import matplotlib.pyplot as plt

df_week['weekly_ret'].plot(kind='line', figsize=(12, 6))
plt.title("Weekly Returns of AAPL")
plt.xlabel("Date")
plt.ylabel("Log Return")
plt.grid(True)
plt.tight_layout()
plt.show()
```