## **A** Prompting Costs

Llama 3 cost \$0.9/1M tokens for both output and input. GPT-40 was \$5/1M for input and \$15/1M for output. The detailed cost breakdown is provided in Table 6:

	GPT-40		Llama 3		
	in	out	in	out	TOTAL
e2e_rdf	1.57	1.89	0.28	0.13	3.85
e2e_slot	1.15	1.67	0.21	0.10	3.11
webnlg_rdf	1.10	1.53	0.20	0.09	2.92
webnlg_slot	0.96	1.41	0.17	0.08	2.62
TOTAL	4.78	6.50	0.86	0.40	_

Table 6: Cost in USD for each dataset  $\times$  representation with each LLM. Totals do not sum up exactly across the margins due to rounding to the nearest penny.

## **B** Example Outputs

Here we show a few example texts from our seq2seq model as well as GPT-40 and Llama 3.

E2E
<pre><subject> Blue Spice <predicate> eat type <object> coffee shop <triple_sep> <subject> Blue Spice</subject></triple_sep></object></predicate></subject></pre>
<pre><predicate> area &lt;0BJECT&gt; city centre</predicate></pre>
Blue Spice is a pub located in the city centre.
name == Blue Spice <pair_sep> eat type == coffee shop <pair_sep> area == city centre</pair_sep></pair_sep>
Blue Spice is a pub in the city centre.
<pre><subject> Clowns <predicate> eat type <object> coffee shop <triple_sep> <subject> Clowns <predicate> customer rating <object> 5 out of 5 <triple_sep> <subject> Clowns <predicate> near</predicate></subject></triple_sep></object></predicate></subject></triple_sep></object></predicate></subject></pre>
<pre><object> Crowne Plaza Hotel</object></pre>
Clowns is a pub near Crowne Plaza Hotel with a customer rating of 5 out of 5.
name == Clowns <pair_sep> eat type == coffee shop <pair_sep> customer rating == 5 out of 5</pair_sep></pair_sep>
<pre><pair_sep> near == Crowne Plaza Hotel</pair_sep></pre>
Clowns is a pub near Crowne Plaza Hotel with a customer rating of 5 out of 5.
WebNLG
<pre><subject> Adolfo Suárez Madrid- Barajas Airport <predicate> location <object> Madrid , Paracuellos</object></predicate></subject></pre>
de Jarama , San Sebastián de los Reyes and Alcobendas
Adolfo Suárez Madrid-Barajas Airport is located in Madrid, Paracuellos de Jarama, San Sebastián de los Reyes and
Alcobendas.
name == Adolfo Suárez Madrid- Barajas Airport <pair_sep> location == Madrid , Paracuellos de</pair_sep>
Jarama , San Sebastián de los Reyes and Alcobendas
Adolfo Suárez Madrid–Barajas Airport is located in Madrid, Paracuellos de Jarama, San Sebastián de los Reyes and
Alcobendas.
<pre><subject> William Anders <predicate> date of retirement <object> 1969-09-01 <triple_sep> <subject> William Anders <predicate> was selected by nasa <object> 1963 <triple_sep> <subject> William Anders <predicate> time in space <object> 8820.0"(minutes) <triple_sep> <subject> William Anders <predicate> birth date <object> 1933-10-17 <triple_sep> <subject> William Anders <predicate> occupation <object> Fighter pilot <triple_sep> <subject> William Anders <predicate> birth place <object> British Hong Kong <triple_sep> <subject> William Anders <predicate> was a crew member</predicate></subject></triple_sep></object></predicate></subject></triple_sep></object></predicate></subject></triple_sep></object></predicate></subject></triple_sep></object></predicate></subject></triple_sep></object></predicate></subject></triple_sep></object></predicate></subject></pre>
of <object> Apollo 8</object>
William Anders was born inPATIENT-5 and graduated from UT Austin in 1955 with a B. S. He served as a test pilot and was selected by NASA in Apollo 8. He was selected by NASA inPATIENT-4
name == William Anders <pair_sep> date of retirement == 1969-09-01 <pair_sep> was selected by</pair_sep></pair_sep>
nasa == 1963 <pair_sep> time in space == 8820.0"(minutes) <pair_sep> birth date == 1933-10-17</pair_sep></pair_sep>
<pair_sep> occupation == Fighter pilot <pair_sep> birth place == British Hong Kong <pair_sep></pair_sep></pair_sep></pair_sep>
was a crew member of == Apollo 8
William Anders was born on March 15, 1932 in He graduated from NWC with an M. A. in 1957. He was a test pilot and died in St Louis.

Table 7: Example input-output pairs from both datasets and input representations with our seq2seq model.

E2E
<pre><subject> Blue Spice <predicate> eat type <object> coffee shop <triple_sep> <subject> Blue Spice </subject></triple_sep></object></predicate></subject></pre>
<pre><predicate> area &lt;0BJECT&gt; city centre</predicate></pre>
Blue Spice is a coffee shop located in the city centre.
<pre>name == Blue Spice <pair_sep> eat type == coffee shop <pair_sep> area == city centre</pair_sep></pair_sep></pre>
Blue Spice is a coffee shop located in the city centre.
<pre><subject> Clowns <predicate> eat type <object> coffee shop <triple_sep> <subject> Clowns</subject></triple_sep></object></predicate></subject></pre>
<pre><predicate> customer rating <object> 5 out of 5 <triple_sep> <subject> Clowns <predicate> near</predicate></subject></triple_sep></object></predicate></pre>
<pre>&lt;0BJECT&gt; Crowne Plaza Hotel</pre>
Clowns enjoy eating at a coffee shop. They have a customer rating of 5 out of 5. They are located near the Crowne Plaza
Hotel.
<pre>name == Clowns <pair_sep> eat type == coffee shop <pair_sep> customer rating == 5 out of 5</pair_sep></pair_sep></pre>
<pair_sep> near == Crowne Plaza Hotel</pair_sep>
Clowns is a coffee shop near the Crowne Plaza Hotel with a customer rating of 5 out of 5.
WebNLG
<pre><subject> Adolfo Suárez Madrid- Barajas Airport <predicate> location <object> Madrid , Paracuellos</object></predicate></subject></pre>
de Jarama , San Sebastián de los Reyes and Alcobendas
Adolfo Suárez Madrid–Barajas Airport is located in Madrid, Paracuellos de Jarama, San Sebastián de los Reyes, and
Alcobendas.
name == Adolfo Suárez Madrid- Barajas Airport <pair_sep> location == Madrid , Paracuellos de</pair_sep>
Jarama , San Sebastián de los Reyes and Alcobendas
Adolfo Suárez Madrid-Barajas Airport is located in Madrid, Paracuellos de Jarama, San Sebastián de los Reyes, and
Alcobendas.
<subject> William Anders <predicate> date of retirement <object> 1969-09-01 <triple_sep> <subject></subject></triple_sep></object></predicate></subject>
William Anders <predicate> was selected by nasa <object> 1963 <triple_sep> <subject> William</subject></triple_sep></object></predicate>
Anders <predicate> time in space <object> 8820.0"(minutes) <triple_sep> <subject> William Anders</subject></triple_sep></object></predicate>
<pre><predicate> birth date <object> 1933-10-17 <triple_sep> <subject> William Anders <predicate></predicate></subject></triple_sep></object></predicate></pre>
occupation <object> Fighter pilot <triple_sep> <subject> William Anders <predicate> birth place</predicate></subject></triple_sep></object>
<pre><object> British Hong Kong <triple_sep> <subject> William Anders <predicate> was a crew member</predicate></subject></triple_sep></object></pre>
of <object> Apollo 8</object>
William Anders, born on October 17, 1933, in British Hong Kong, was selected by NASA in 1963. He served as a fighter
pilot and was a crew member of Apollo 8. He spent 8,820 minutes in space and retired on September 1, 1969.
name == William Anders <pair_sep> date of retirement == 1969-09-01 <pair_sep> was selected by</pair_sep></pair_sep>
nasa == 1963 <pair_sep> time in space == 8820.0"(minutes) <pair_sep> birth date == 1933-10-17</pair_sep></pair_sep>
<pre><pair_sep> occupation == Fighter pilot <pair_sep> birth place == British Hong Kong <pair_sep></pair_sep></pair_sep></pair_sep></pre>
was a crew member of == Apollo 8
William Anders, born on October 17, 1933, in British Hong Kong, was a fighter pilot selected by NASA in 1963. He
spent 8,820 minutes in space and was a crew member of Apollo 8. Anders retired on September 1, 1969.

Table 8: Example input-output pairs from both datasets and input representations with GPT-40.

E2E
<pre><subject> Blue Spice <predicate> eat type <object> coffee shop <triple_sep> <subject> Blue Spice</subject></triple_sep></object></predicate></subject></pre>
<pre><predicate> area &lt;0BJECT&gt; city centre</predicate></pre>
Blue Spice is a type of coffee shop located in the city centre.
name == Blue Spice <pair_sep> eat type == coffee shop <pair_sep> area == city centre</pair_sep></pair_sep>
Blue Spice is a coffee shop in the city centre.
<pre><subject> Clowns <predicate> eat type <object> coffee shop <triple_sep> <subject> Clowns</subject></triple_sep></object></predicate></subject></pre>
<pre><predicate> customer rating <object> 5 out of 5 <triple_sep> <subject> Clowns <predicate> near</predicate></subject></triple_sep></object></predicate></pre>
<object> Crowne Plaza Hotel</object>
Clowns eat at a coffee shop, have a 5 out of 5 customer rating, and are located near the Crowne Plaza Hotel.
name == Clowns <pair_sep> eat type == coffee shop <pair_sep> customer rating == 5 out of 5</pair_sep></pair_sep>
<pair_sep> near == Crowne Plaza Hotel</pair_sep>
Clowns is a 5-star coffee shop near the Crowne Plaza Hotel.
WebNLG
<pre><subject> Adolfo Suárez Madrid- Barajas Airport <predicate> location <object> Madrid , Paracuellos</object></predicate></subject></pre>
de Jarama , San Sebastián de los Reyes and Alcobendas
Adolfo Suárez Madrid–Barajas Airport is located in Madrid, as well as the surrounding areas of Paracuellos de Jarama,
San Sebastián de los Reyes, and Alcobendas.
name == Adolfo Suárez Madrid- Barajas Airport <pair_sep> location == Madrid , Paracuellos de</pair_sep>
Jarama , San Sebastián de los Reyes and Alcobendas
Adolfo Suárez Madrid-Barajas Airport is located in Madrid, Paracuellos de Jarama, San Sebastián de los Reyes, and
Alcobendas.
<pre><subject> William Anders <predicate> date of retirement <object> 1969-09-01 <triple_sep> <subject></subject></triple_sep></object></predicate></subject></pre>
William Anders <predicate> was selected by nasa <object> 1963 <triple_sep> <subject> William</subject></triple_sep></object></predicate>
Anders <predicate> time in space <object> 8820.0"(minutes) <triple_sep> <subject> William Anders</subject></triple_sep></object></predicate>
<pre><predicate> birth date <object> 1933-10-17 <triple_sep> <subject> William Anders <predicate></predicate></subject></triple_sep></object></predicate></pre>
occupation <object> Fighter pilot <triple_sep> <subject> William Anders <predicate> birth place <object> British Hong Kong <triple_sep> <subject> William Anders <predicate> was a crew member</predicate></subject></triple_sep></object></predicate></subject></triple_sep></object>
of <object> Apollo 8</object>
William Anders retired on September 1, 1969. He was selected by NASA in 1963. Anders spent 8820 minutes in space.
He was born on October 17, 1933, in British Hong Kong. He was a fighter pilot and a crew member of Apollo 8.
name == William Anders <pair_sep> date of retirement == 1969-09-01 <pair_sep> was selected by</pair_sep></pair_sep>
nasa == 1963 <pair_sep> time in space == 8820.0"(minutes) <pair_sep> birth date == 1933-10-17</pair_sep></pair_sep>
<pre><pair_sep> occupation == Fighter pilot <pair_sep> birth place == British Hong Kong <pair_sep></pair_sep></pair_sep></pair_sep></pre>
was a crew member of == Apollo 8
William Anders, a fighter pilot born on October 17, 1933, in British Hong Kong, was selected by NASA in 1963. He was
a crew member of Apollo 8 and spent 8820 minutes in space before retiring on September 1, 1969.

Table 9: Example input-output pairs from both datasets and input representations with Llama 3.