Task Num.	Dataset	Description	Query

T1	NETFLIX	Atypical country	`BEGIN CHILDREN {A1, A2}`
			`A1 LIKE [G,.*] and CHILDREN <B1, B2>`
			`B1 LIKE [F,country,eq,(?<Country>.*)]`
			`B2 LIKE [F,country,ne,(?<Country>.*)]`
			`A2 LIKE [G,.*] and CHILDREN <C1, C2>`
			`C1 LIKE [F,country,eq,(?<Country>.*)]`
			`C2 LIKE [F,country,ne,(?<Country>.*)]`

T2	NETFLIX	Successful TV-shows	`BEGIN CHILDREN <A1>`
			`A1 LIKE [F,type,eq,TV Show] and CHILDREN <B1>`
			`B1 LIKE [F,duration,ge,2] and CHILDREN <C1, C2>`
			`C1 LIKE [G,(?<col1>.*),.*]`
			`C2 LIKE [F,(?<col1>.*),.*] and CHILDREN <D1, D2>`
			`D1 LIKE [G,(?<col2>.*),.*]`
			`D2 LIKE [F,(?<col2>.*),.*]`

T3	NETFLIX	Compare titles of three different actors	`A1 LIKE [F,cast,contains,.*] and SIBLINGS {A2,A3} and CHILDREN {B1}`
			`B1 LIKE [G,(?<col>.*),(?<func>.*),(?<agg>.*)]`
			`A2 LIKE [F,cast,contains,.*] and CHILDREN {B2}`
			`B2 LIKE [G,(?<col>.*),(?<func>.*),(?<agg>.*)]`
			`A3 LIKE [F,cast,contains,.*] and CHILDREN {B3}`
			`B3 LIKE [G,(?<col>.*),(?<func>.*),(?<agg>.*)]`

T4	NETFLIX	Investigate movies' duration	`BEGIN CHILDREN {A1}`
			`A1 LIKE [F,type,eq,Movie] and CHILDREN <B1, B2>`
			`B1 LIKE [F,.*] and DESCENDANTS {D1,*}`
			`D1 LIKE [G,.*,AVG,duration]`
			`B2 LIKE [F,.*] and DESCENDANTS {D2,*}`
			`D2 LIKE [G,.*,AVG,duration]`

T5	FLIGHTS	Properties of summer-months flights	`BEGIN CHILDREN <A1,A2,A3>`
			`A1 LIKE [G,(?<col1>.*),.*]`
			`A2 LIKE [G,(?<col2>.*),.*]`
			`A3 LIKE [F,Month,ge,7] and CHILDREN <B1>`
			`B1 LIKE [F,Month,le,8] and CHILDREN <C3,C4,*>`
			`C3 LIKE [G,(?<col1>.*),.*]`
			`C4 LIKE [G,(?<col2>.*),.*]`

T6	FLIGHTS	Explore reasons for delay	`BEGIN CHILDREN <A1,A2,A3,A4>`
			`A1 LIKE [G,DelayReason,.*]`
			`A2 LIKE [F,DelayReason,eq,.*] and CHILDREN {B2}`
			`B2 LIKE [G,.*]`
			`A3 LIKE [F,DelayReason,eq,.*] and CHILDREN {B3}`
			`B3 LIKE [G,.*]`
			`A4 LIKE [F,DelayReason,eq,.*] and CHILDREN {B4}`
			`B4 LIKE [G,.*]`

T7	FLIGHTS	What type of flights have long delays	`BEGIN CHILDREN {A1}`
			`A1 LIKE [F,DepartureDelay,eq,LARGE_DEALY] and CHILDREN <B1,*>`
			`B1 LIKE [G,(?<col>.*),.*] and SIBLINGS {B2, B3, B4}`
			`B2 LIKE [F,(?<col>.*),eq,.*]`
			`B3 LIKE [F,(?<col>.*),eq,.*]`
			`B4 LIKE [F,(?<col>.*),eq,.*]`

T8	FLIGHTS	What flights are delayed due to weather?	`BEGIN DESCENDANTS {D1,*}`
			`D1 LIKE [F,DelayReason,eq,WEATHER] and CHILDREN {B1, B2}`
			`B1 LIKE [G,.*]`
			`B2 LIKE [G,.*]`

T9	PLAY STORE	Properties of apps with $\geq$ 1M installs	`BEGIN CHILDREN <A1,A2>`
			`A1 LIKE [G,(?<col>.*),(?<func>.*),(?<agg>.*)] and CHILDREN {B1}`
			`B1 LIKE [G,installs,.*] and CHILDREN {}`
			`A2 LIKE [F,installs,ge,1000000] and DESCENDANTS {D1,*}`
			`D1 LIKE [G,(?<col>.*),(?<func>.*),(?<agg>.*)]`

T10	PLAY STORE	Compare highly-rated with low-rated apps	`BEGIN CHILDREN <A1,A2>`
			`A1 LIKE [F,rating,le,2.5] and CHILDREN <C1,C2>`
			`C1 LIKE [G,(?<col1>.*),(?<func1>.*),(?<agg1>.*)]`
			`C2 LIKE [G,(?<col2>.*),(?<func2>.*),(?<agg2>.*)]`
			`A2 LIKE [F,rating,ge,4.7] and CHILDREN <D1,D2,*>`
			`D1 LIKE [G,(?<col1>.*),(?<func1>.*),(?<agg1>.*)]`
			`D2 LIKE [G,(?<col2>.*),(?<func2>.*),(?<agg2>.*)]`

T11	PLAY STORE	Explore apps with backwards compatibility	`BEGIN CHILDREN <A1,A2,A3,A4>`
			`A1 LIKE [G,.*] and CHILDREN <B1>`
			`B1 LIKE [G,min_android_ver,CNT,app_id] and CHILDREN {}`
			`A2 LIKE [G,.*] and CHILDREN <C1,*>`
			`C1 LIKE [G,min_android_ver,.*]`
			`A3 LIKE [F,(?<col>.*),.*] and CHILDREN <D1,*>`
			`D1 LIKE [G,min_android_ver,.*]`
			`A4 LIKE [F,(?<col>.*),.*] and CHILDREN <E1,*>`
			`E1 LIKE [G,min_android_ver,.*]`

T12	PLAY STORE	Compare paid apps to free apps	`BEGIN CHILDREN <A1,A2>`
			`A1 LIKE [G,.*] and CHILDREN <B1>`
			`B1 LIKE [G,.*] and CHILDREN <D1, D2>`
			`D1 LIKE [F,type,eq,Paid]`
			`D2 LIKE [F,type,eq,Free]`
			`A2 LIKE [G,.*] and CHILDREN <C1, C2>`
			`C1 LIKE [F,type,eq,Paid]`
			`C2 LIKE [F,type,eq,Free]`

Table 1: LDX Queries for Different Analysis Tasks