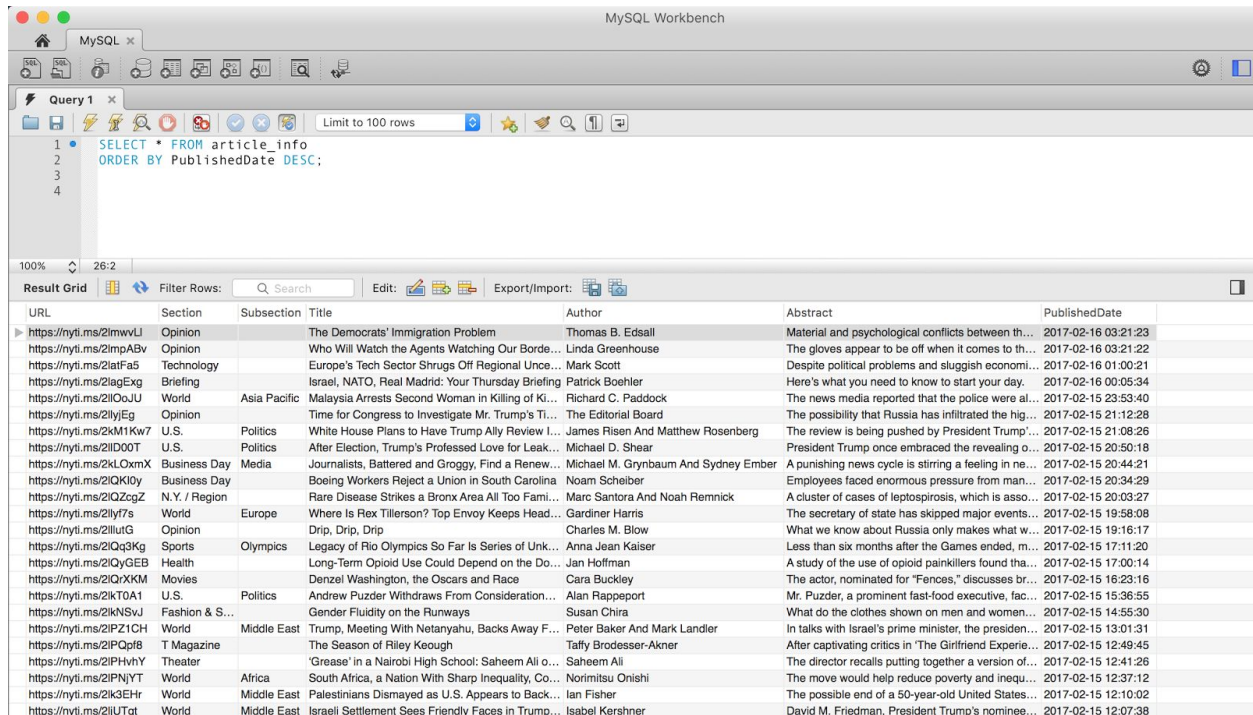


Kelly Xie  
Projects in Programming  
Assignment #1: Screenshots

NYTimes Top Stories API data stored in NYT\_TopStories database

1. Time-invariant table (article\_info) fetching and storing new articles  
over time

@4:00AM



MySQL Workbench

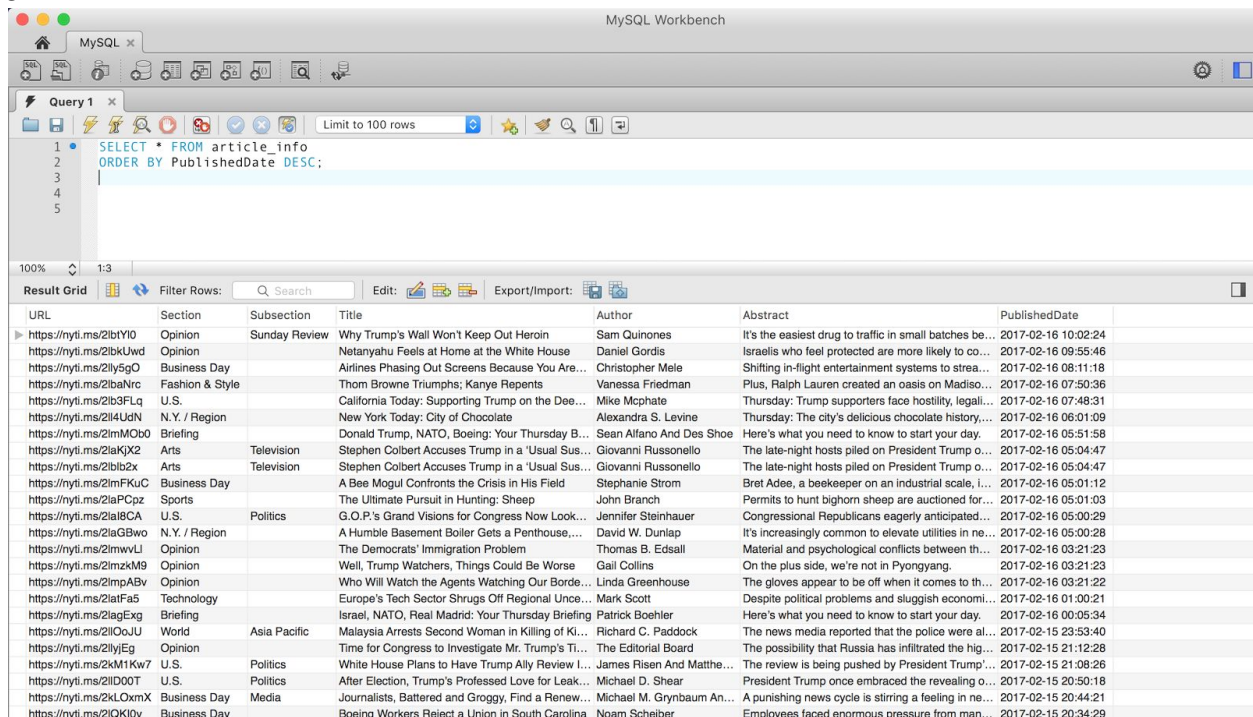
Query 1

```
1 SELECT * FROM article_info
2 ORDER BY PublishedDate DESC;
```

Result Grid

URL	Section	Subsection	Title	Author	Abstract	PublishedDate
https://nyti.ms/2lmwLJ	Opinion		The Democrats' Immigration Problem	Thomas B. Edsall	Material and psychological conflicts between th...	2017-02-16 03:21:23
https://nyti.ms/2lmpABv	Opinion		Who Will Watch the Agents Watching Our Borde...	Linda Greenhouse	The gloves appear to be off when it comes to th...	2017-02-16 03:21:22
https://nyti.ms/2latfA5	Technology		Europe's Tech Sector Shrugs Off Regional Unce...	Mark Scott	Despite political problems and sluggish economi...	2017-02-16 01:00:21
https://nyti.ms/2laqEgX	Briefing		Israel, NATO, Real Madrid: Your Thursday Briefing	Patrick Boehler	Here's what you need to know to start your day.	2017-02-16 00:05:34
https://nyti.ms/2lloOJU	World	Asia Pacific	Malaysia Arrests Second Woman in Killing of Ki...	Richard C. Paddock	The news media reported that the police were al...	2017-02-15 23:53:40
https://nyti.ms/2llyEg	Opinion		Time for Congress to Investigate Mr. Trump's Ti...	The Editorial Board	The possibility that Russia has infiltrated the hig...	2017-02-15 21:12:28
https://nyti.ms/2kM1Kw7	U.S.	Politics	White House Plans to Have Trump Ally Review I...	James Risen And Matthew Rosenberg	The review is being pushed by President Trump...	2017-02-15 21:08:26
https://nyti.ms/2lID0OT	U.S.	Politics	After Election, Trump's Professed Love for Leak...	Michael D. Shear	President Trump once embraced the revealing o...	2017-02-15 20:50:18
https://nyti.ms/2klOxmX	Business Day	Media	Journalists, Battered and Groggy, Find a Renew...	Michael M. Grynbaum And Sydney Ember	A punishing news cycle is stirring a feeling in ne...	2017-02-15 20:44:21
https://nyti.ms/2lQKlOy	Business Day		Boeing Workers Reject a Union in South Carolina	Noam Scheiber	Employees faced enormous pressure from man...	2017-02-15 20:34:29
https://nyti.ms/2lQZcgZ	N.Y. / Region		Rare Disease Strikes a Bronx Area All Too Fami...	Marc Santora And Noah Remnick	A cluster of cases of leptospirosis, which is asso...	2017-02-15 20:03:27
https://nyti.ms/2llyT7s	World	Europe	Where Is Rex Tillerson? Top Envoy Keeps Head...	Gardiner Harris	The secretary of state has skipped major events...	2017-02-15 19:58:08
https://nyti.ms/2llutG	Opinion		Drip, Drip, Drip	Charles M. Blow	What we know about Russia only makes what w...	2017-02-15 19:16:17
https://nyti.ms/2lQyGEB	Sports	Olympics	Legacy of Rio Olympics So Far Is Series of Unk...	Anna Jean Kaiser	Less than six months after the Games ended, m...	2017-02-15 17:11:20
https://nyti.ms/2lQyGEB	Health		Long-Term Opioid Use Could Depend on the Do...	Jan Hoffman	A study of the use of opioid painkillers found tha...	2017-02-15 17:00:14
https://nyti.ms/2lQyGEB	Movies		Denzel Washington, the Oscars and Race	Cara Buckley	The actor, nominated for "Fences," discusses br...	2017-02-15 16:23:16
https://nyti.ms/2lQyGEB	U.S.	Politics	Andrew Puzder Withdraws From Consideration...	Alan Rappeport	Mr. Puzder, a prominent fast-food executive, fac...	2017-02-15 15:36:55
https://nyti.ms/2lQyGEB	Fashion & S...		Gender Fluidity on the Runways	Susan Chira	What do the clothes shown on men and women...	2017-02-15 14:55:30
https://nyti.ms/2lQyGEB	World	Middle East	Trump, Meeting With Netanyahu, Backs Away F...	Peter Baker And Mark Landler	In talks with Israel's prime minister, the presiden...	2017-02-15 13:01:31
https://nyti.ms/2lQyGEB	T Magazine		The Season of Riley Keough	Taffy Brodesser-Akner	After captivating critics in "The Girlfriend Experie...	2017-02-15 12:49:45
https://nyti.ms/2lQyGEB	Theater		'Grease' in a Nairobi High School: Saheem Ali o...	Saheem Ali	The director recalls putting together a version of...	2017-02-15 12:41:26
https://nyti.ms/2lQyGEB	World	Africa	South Africa, a Nation With Sharp Inequality, Co...	Norimitsu Onishi	The move would help reduce poverty and inequ...	2017-02-15 12:37:12
https://nyti.ms/2lQyGEB	World	Middle East	Palestinians Dismayed as U.S. Appears to Back...	Ian Fisher	The possible end of a 50-year-old United States...	2017-02-15 12:10:02
https://nyti.ms/2lQyGEB	World	Middle East	Israeli Settlement Sees Friendly Faces in Trump...	Isabel Kershner	David M. Friedman, President Trump's nominee...	2017-02-15 12:07:38

@11:00AM



MySQL Workbench

Query 1

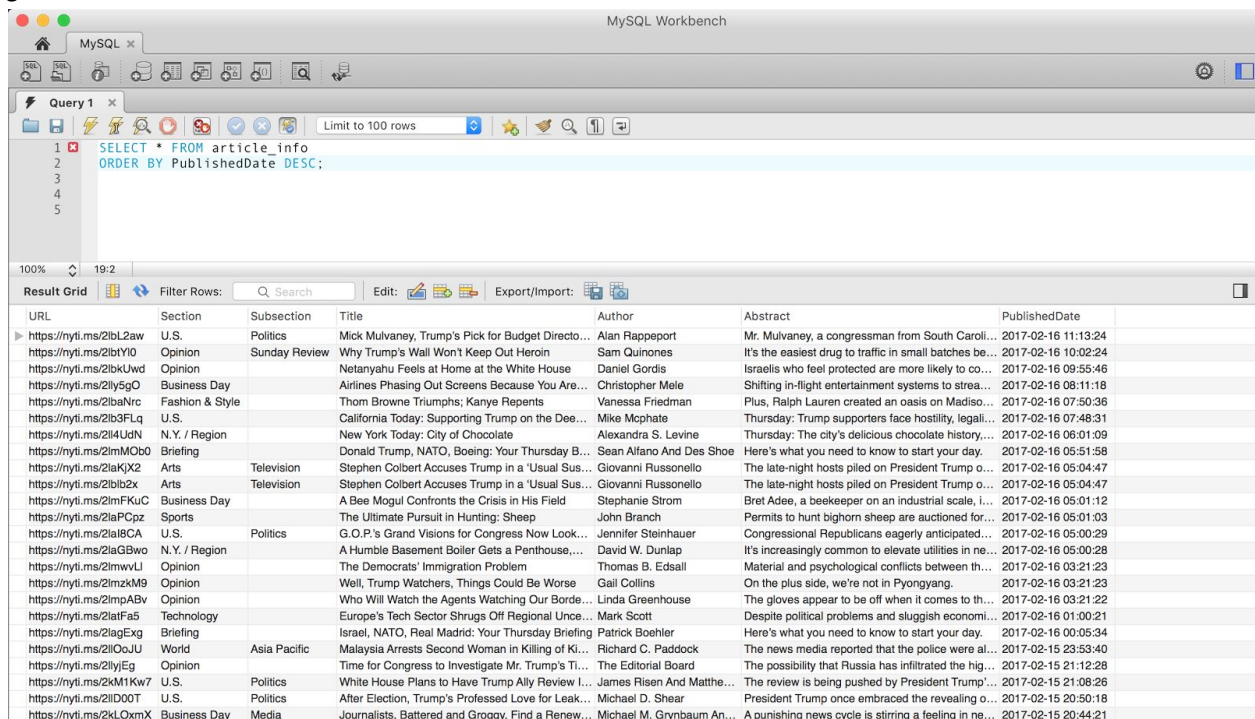
```
1 SELECT * FROM article_info
2 ORDER BY PublishedDate DESC;
```

Result Grid

URL	Section	Subsection	Title	Author	Abstract	PublishedDate
https://nyti.ms/2lbtYI0	Opinion	Sunday Review	Why Trump's Wall Won't Keep Out Heroin	Sam Quinones	It's the easiest drug to traffic in small batches be...	2017-02-16 10:02:24
https://nyti.ms/2lbtYI0	Opinion		Netanyahu Feels at Home at the White House	Daniel Gordis	Israelis who feel protected are more likely to co...	2017-02-16 09:55:46
https://nyti.ms/2lbtYI0	Business Day		Airlines Phasing Out Screens Because You Are...	Christopher Mele	Shifting in-flight entertainment systems to strea...	2017-02-16 08:11:18
https://nyti.ms/2lbtYI0	Fashion & Style		Thom Browne Triumphs; Kanye Repents	Vanessa Friedman	Plus, Ralph Lauren created an oasis on Madiso...	2017-02-16 07:50:36
https://nyti.ms/2lbtYI0	U.S.		California Today: Supporting Trump on the Dee...	Mike Mcphate	Thursday: Trump supporters face hostility, legali...	2017-02-16 07:48:31
https://nyti.ms/2lbtYI0	N.Y. / Region		New York Today: City of Chocolate	Alexandra S. Levine	Thursday: The city's delicious chocolate history...	2017-02-16 06:01:09
https://nyti.ms/2lbtYI0	Briefing		Donald Trump, NATO, Boeing: Your Thursday B...	Sean Alfano And Des Shoe	Here's what you need to know to start your day.	2017-02-16 05:51:58
https://nyti.ms/2lbtYI0	Arts	Television	Stephen Colbert Accuses Trump in a 'Usual Sus...	Giovanni Russonello	The late-night hosts piled on President Trump o...	2017-02-16 05:04:47
https://nyti.ms/2lbtYI0	Arts	Television	Stephen Colbert Accuses Trump in a 'Usual Sus...	Giovanni Russonello	The late-night hosts piled on President Trump o...	2017-02-16 05:04:47
https://nyti.ms/2lbtYI0	Business Day		A Bee Mogul Confronts the Crisis in His Field	Stephanie Strom	Bret Adee, a beekeeper on an industrial scale, l...	2017-02-16 05:01:12
https://nyti.ms/2lbtYI0	Sports		The Ultimate Pursuit in Hunting: Sheep	John Branch	Permits to hunt bighorn sheep are auctioned for...	2017-02-16 05:01:03
https://nyti.ms/2lbtYI0	U.S.	Politics	G.O.P.'s Grand Visions for Congress Now Look...	Jennifer Steinhauer	Congressional Republicans eagerly anticipated...	2017-02-16 05:00:29
https://nyti.ms/2lbtYI0	N.Y. / Region		A Humble Basement Boiler Gets a Penthouse	David W. Dunlap	It's increasingly common to elevate utilities in ne...	2017-02-16 05:00:28
https://nyti.ms/2lbtYI0	Opinion		The Democrats' Immigration Problem	Thomas B. Edsall	Material and psychological conflicts between th...	2017-02-16 03:21:23
https://nyti.ms/2lbtYI0	Opinion		Well, Trump Watchers, Things Could Be Worse	Gail Collins	On the plus side, we're not in Pyongyang.	2017-02-16 03:21:23
https://nyti.ms/2lbtYI0	Opinion		Who Will Watch the Agents Watching Our Borde...	Linda Greenhouse	The gloves appear to be off when it comes to th...	2017-02-16 03:21:22
https://nyti.ms/2lbtYI0	Technology		Europe's Tech Sector Shrugs Off Regional Unce...	Mark Scott	Despite political problems and sluggish economi...	2017-02-16 01:00:21
https://nyti.ms/2lbtYI0	Briefing		Israel, NATO, Real Madrid: Your Thursday Briefing	Patrick Boehler	Here's what you need to know to start your day.	2017-02-16 00:05:34
https://nyti.ms/2lbtYI0	World	Asia Pacific	Malaysia Arrests Second Woman in Killing of Ki...	Richard C. Paddock	The news media reported that the police were al...	2017-02-15 23:53:40
https://nyti.ms/2lbtYI0	Opinion		Time for Congress to Investigate Mr. Trump's Ti...	The Editorial Board	The possibility that Russia has infiltrated the hig...	2017-02-15 21:12:28
https://nyti.ms/2lbtYI0	U.S.	Politics	White House Plans to Have Trump Ally Review I...	James Risen And Matthe...	The review is being pushed by President Trump...	2017-02-15 21:08:26
https://nyti.ms/2lbtYI0	U.S.	Politics	After Election, Trump's Professed Love for Leak...	Michael D. Shear	President Trump once embraced the revealing o...	2017-02-15 20:50:18
https://nyti.ms/2lbtYI0	Business Day	Media	Journalists, Battered and Groggy, Find a Renew...	Michael M. Grynbaum An...	A punishing news cycle is stirring a feeling in ne...	2017-02-15 20:44:21
https://nyti.ms/2lbtYI0	Business Day		Boeing Workers Reject a Union in South Carolina	Noam Scheiber	Employees faced enormous pressure from man...	2017-02-15 20:34:29

Kelly Xie  
Projects in Programming  
Assignment #1: Screenshots

@12:00PM



The screenshot shows the MySQL Workbench interface. At the top, the title bar reads 'MySQL Workbench'. Below it, the 'Query 1' tab is active, displaying a SQL query: `SELECT * FROM article_info ORDER BY PublishedDate DESC;`. The query results are shown in a table with 8 columns: URL, Section, Subsection, Title, Author, Abstract, and PublishedDate. The table contains 20 rows of data, with the first row being the most recent publication.

URL	Section	Subsection	Title	Author	Abstract	PublishedDate
https://nyti.ms/2lbL2aw	U.S.	Politics	Mick Mulvaney, Trump's Pick for Budget Directo...	Alan Rappeport	Mr. Mulvaney, a congressman from South Caroli...	2017-02-16 11:13:24
https://nyti.ms/2lbkYI0	Opinion	Sunday Review	Why Trump's Wall Won't Keep Out Heroin	Sam Quinones	It's the easiest drug to traffic in small batches be...	2017-02-16 10:02:24
https://nyti.ms/2ily5gO	Opinion		Netanyahu Feels at Home at the White House	Daniel Gordis	Israelis who feel protected are more likely to co...	2017-02-16 09:55:46
https://nyti.ms/2lbaNrc	Business Day		Airlines Phasing Out Screens Because You Are...	Christopher Mele	Shifting in-flight entertainment systems to strea...	2017-02-16 08:11:18
https://nyti.ms/2lb3FLq	Fashion & Style		Thom Browne Triumphs; Kanye Repents	Vanessa Friedman	Plus, Ralph Lauren created an oasis on Madiso...	2017-02-16 07:50:36
https://nyti.ms/2l4UdN	U.S.		California Today: Supporting Trump on the Dee...	Mike Mcphate	Thursday: Trump supporters face hostility, legall...	2017-02-16 07:48:31
https://nyti.ms/2lmMOBo	N.Y. / Region		New York Today: City of Chocolate	Alexandra S. Levine	Thursday: The city's delicious chocolate history...	2017-02-16 06:01:09
https://nyti.ms/2laKjX2	Briefing		Donald Trump, NATO, Boeing: Your Thursday B...	Sean Alfano And Des Shoe	Here's what you need to know to start your day...	2017-02-16 05:51:58
https://nyti.ms/2lb2x	Arts	Television	Stephen Colbert Accuses Trump in a 'Usual Sus...	Giovanni Russonello	The late-night hosts piled on President Trump o...	2017-02-16 05:04:47
https://nyti.ms/2lmFKuC	Arts	Television	Stephen Colbert Accuses Trump in a 'Usual Sus...	Giovanni Russonello	The late-night hosts piled on President Trump o...	2017-02-16 05:04:47
https://nyti.ms/2laPCpz	Business Day		A Bee Mogul Confronts the Crisis in His Field	Stephanie Strom	Bret Adee, a beekeeper on an industrial scale, i...	2017-02-16 05:01:12
https://nyti.ms/2laG8CA	Sports		The Ultimate Pursuit in Hunting: Sheep	John Branch	Permits to hunt bighorn sheep are auctioned for...	2017-02-16 05:01:03
https://nyti.ms/2laG8CA	U.S.	Politics	G.O.P.'s Grand Visions for Congress Now Look...	Jennifer Steinhauer	Congressional Republicans eagerly anticipated...	2017-02-16 05:00:29
https://nyti.ms/2laG8CA	N.Y. / Region		A Humble Basement Boiler Gets a Penthouse...	David W. Dunlap	It's increasingly common to elevate utilities in ne...	2017-02-16 05:00:28
https://nyti.ms/2lmwvLJ	Opinion		The Democrats' Immigration Problem	Thomas B. Edsall	Material and psychological conflicts between th...	2017-02-16 03:21:23
https://nyti.ms/2lmwvLJ	Opinion		Well, Trump Watchers, Things Could Be Worse	Gail Collins	On the plus side, we're not in Pyongyang.	2017-02-16 03:21:23
https://nyti.ms/2lmpABv	Opinion		Who Will Watch the Agents Watching Our Borde...	Linda Greenhouse	The gloves appear to be off when it comes to th...	2017-02-16 03:21:22
https://nyti.ms/2latFa5	Technology		Europe's Tech Sector Shrugs Off Regional Unce...	Mark Scott	Despite political problems and sluggish economi...	2017-02-16 01:00:21
https://nyti.ms/2liagExg	Briefing		Israel, NATO, Real Madrid: Your Thursday Briefing	Patrick Boehler	Here's what you need to know to start your day...	2017-02-16 00:05:34
https://nyti.ms/2liOoJU	World	Asia Pacific	Malaysia Arrests Second Woman in Killing of Ki...	Richard C. Paddock	The news media reported that the police were al...	2017-02-15 23:53:40
https://nyti.ms/2liyEg	Opinion		Time for Congress to Investigate Mr. Trump's Ti...	The Editorial Board	The possibility that Russia has infiltrated the hig...	2017-02-15 21:12:28
https://nyti.ms/2kM1Kw7	U.S.	Politics	White House Plans to Have Trump Ally Review I...	James Risen And Matthe...	The review is being pushed by President Trump...	2017-02-15 21:08:26
https://nyti.ms/2liD00T	U.S.	Politics	After Election, Trump's Professed Love for Leak...	Michael D. Shear	President Trump once embraced the revealing o...	2017-02-15 20:50:18
https://nyti.ms/2klOxmX	Business Day	Media	Journalists, Battered and Groggy, Find a Renew...	Michael M. Grynbaum An...	A punishing news cycle is stirring a feeling in ne...	2017-02-15 20:44:21

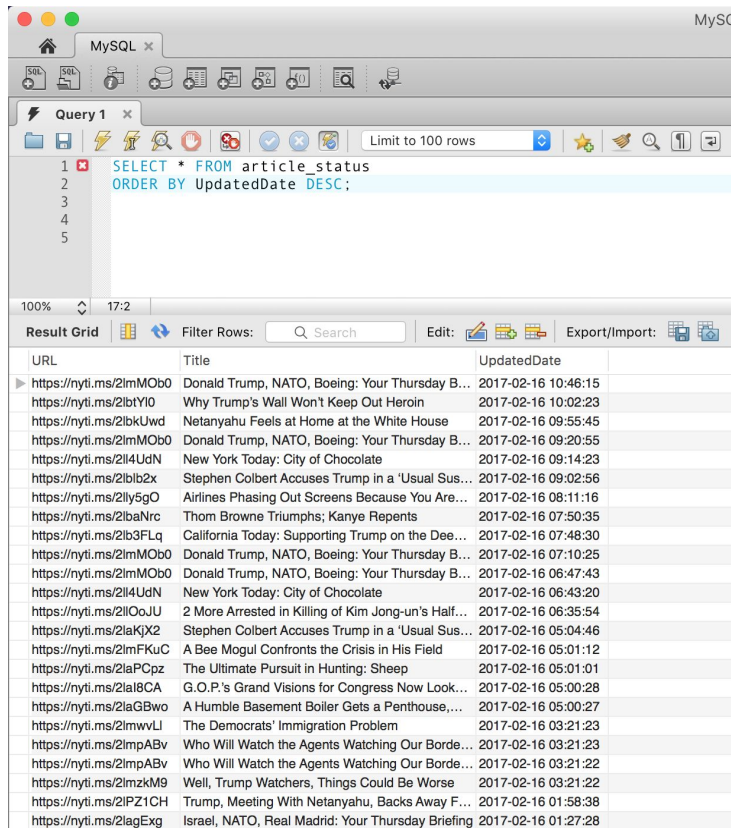
2. Time-varying table (`article_status`) fetching and storing articles that were updated *after* original date/time of publication

@11:00AM

# Kelly Xie

## Projects in Programming

### Assignment #1: Screenshots



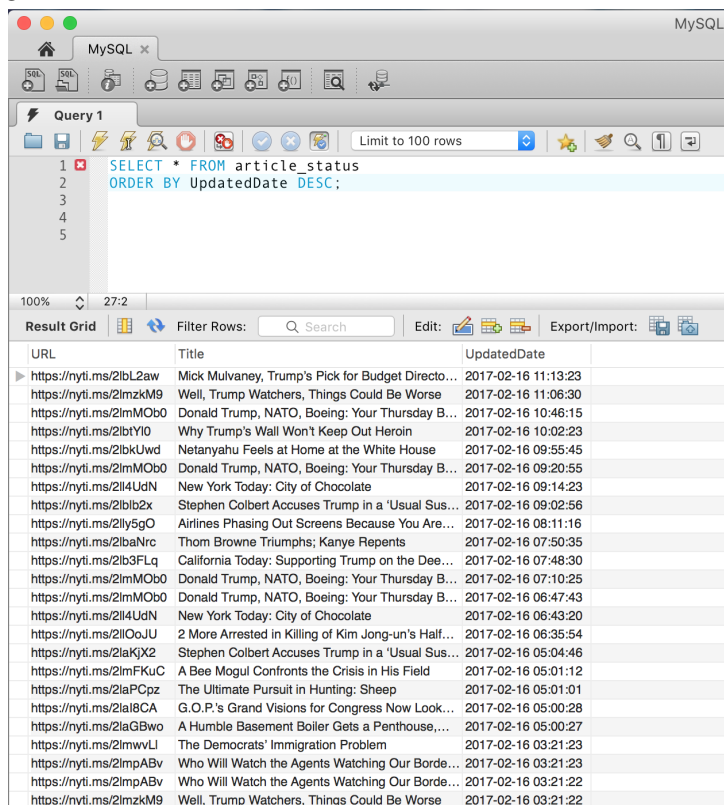
Query 1

```
SELECT * FROM article_status
ORDER BY UpdatedDate DESC;
```

Result Grid

URL	Title	UpdatedDate
https://nyti.ms/2lmMOB0	Donald Trump, NATO, Boeing: Your Thursday B...	2017-02-16 10:46:15
https://nyti.ms/2lbtYI0	Why Trump's Wall Won't Keep Out Heroin	2017-02-16 10:02:23
https://nyti.ms/2lbtUwd	Netanyahu Feels at Home at the White House	2017-02-16 09:55:45
https://nyti.ms/2lmMOB0	Donald Trump, NATO, Boeing: Your Thursday B...	2017-02-16 09:20:55
https://nyti.ms/2l4UdN	New York Today: City of Chocolate	2017-02-16 09:14:23
https://nyti.ms/2lbt2x	Stephen Colbert Accuses Trump in a 'Usual Sus...	2017-02-16 09:02:56
https://nyti.ms/2lly5gO	Airlines Phasing Out Screens Because You Are...	2017-02-16 08:11:16
https://nyti.ms/2lbaNrc	Thom Browne Triumphs; Kanye Repents	2017-02-16 07:50:35
https://nyti.ms/2lb3FLq	California Today: Supporting Trump on the Dee...	2017-02-16 07:48:30
https://nyti.ms/2lmMOB0	Donald Trump, NATO, Boeing: Your Thursday B...	2017-02-16 07:10:25
https://nyti.ms/2lmMOB0	Donald Trump, NATO, Boeing: Your Thursday B...	2017-02-16 06:47:43
https://nyti.ms/2l4UdN	New York Today: City of Chocolate	2017-02-16 06:43:20
https://nyti.ms/2lOoJU	2 More Arrested in Killing of Kim Jong-un's Half...	2017-02-16 06:35:54
https://nyti.ms/2laKX2	Stephen Colbert Accuses Trump in a 'Usual Sus...	2017-02-16 05:04:46
https://nyti.ms/2lmFKuC	A Bee Mogul Confronts the Crisis in His Field	2017-02-16 05:01:12
https://nyti.ms/2laPCpz	The Ultimate Pursuit in Hunting: Sheep	2017-02-16 05:01:01
https://nyti.ms/2la8CA	G.O.P.'s Grand Visions for Congress Now Look...	2017-02-16 05:00:28
https://nyti.ms/2laGBwo	A Humble Basement Boiler Gets a Penthouse,...	2017-02-16 05:00:27
https://nyti.ms/2lmwvLI	The Democrats' Immigration Problem	2017-02-16 03:21:23
https://nyti.ms/2lmpABv	Who Will Watch the Agents Watching Our Borde...	2017-02-16 03:21:23
https://nyti.ms/2lmpABv	Who Will Watch the Agents Watching Our Borde...	2017-02-16 03:21:22
https://nyti.ms/2lmzkM9	Well, Trump Watchers, Things Could Be Worse	2017-02-16 03:21:22
https://nyti.ms/2lPZ1CH	Trump, Meeting With Netanyahu, Backs Away F...	2017-02-16 01:58:38
https://nyti.ms/2lagExg	Israel, NATO, Real Madrid: Your Thursday Briefing	2017-02-16 01:27:28

@12:00PM



Query 1

```
SELECT * FROM article_status
ORDER BY UpdatedDate DESC;
```

Result Grid

URL	Title	UpdatedDate
https://nyti.ms/2lbtL2aw	Mick Mulvaney, Trump's Pick for Budget Directo...	2017-02-16 11:13:23
https://nyti.ms/2lmzkM9	Well, Trump Watchers, Things Could Be Worse	2017-02-16 11:06:30
https://nyti.ms/2lmMOB0	Donald Trump, NATO, Boeing: Your Thursday B...	2017-02-16 10:46:15
https://nyti.ms/2lbtYI0	Why Trump's Wall Won't Keep Out Heroin	2017-02-16 10:02:23
https://nyti.ms/2lbtUwd	Netanyahu Feels at Home at the White House	2017-02-16 09:55:45
https://nyti.ms/2lmMOB0	Donald Trump, NATO, Boeing: Your Thursday B...	2017-02-16 09:20:55
https://nyti.ms/2l4UdN	New York Today: City of Chocolate	2017-02-16 09:14:23
https://nyti.ms/2lbt2x	Stephen Colbert Accuses Trump in a 'Usual Sus...	2017-02-16 09:02:56
https://nyti.ms/2lly5gO	Airlines Phasing Out Screens Because You Are...	2017-02-16 08:11:16
https://nyti.ms/2lbaNrc	Thom Browne Triumphs; Kanye Repents	2017-02-16 07:50:35
https://nyti.ms/2lb3FLq	California Today: Supporting Trump on the Dee...	2017-02-16 07:48:30
https://nyti.ms/2lmMOB0	Donald Trump, NATO, Boeing: Your Thursday B...	2017-02-16 07:10:25
https://nyti.ms/2lmMOB0	Donald Trump, NATO, Boeing: Your Thursday B...	2017-02-16 06:47:43
https://nyti.ms/2l4UdN	New York Today: City of Chocolate	2017-02-16 06:43:20
https://nyti.ms/2lOoJU	2 More Arrested in Killing of Kim Jong-un's Half...	2017-02-16 06:35:54
https://nyti.ms/2laKX2	Stephen Colbert Accuses Trump in a 'Usual Sus...	2017-02-16 05:04:46
https://nyti.ms/2lmFKuC	A Bee Mogul Confronts the Crisis in His Field	2017-02-16 05:01:12
https://nyti.ms/2laPCpz	The Ultimate Pursuit in Hunting: Sheep	2017-02-16 05:01:01
https://nyti.ms/2la8CA	G.O.P.'s Grand Visions for Congress Now Look...	2017-02-16 05:00:28
https://nyti.ms/2laGBwo	A Humble Basement Boiler Gets a Penthouse,...	2017-02-16 05:00:27
https://nyti.ms/2lmwvLI	The Democrats' Immigration Problem	2017-02-16 03:21:23
https://nyti.ms/2lmpABv	Who Will Watch the Agents Watching Our Borde...	2017-02-16 03:21:23
https://nyti.ms/2lmpABv	Who Will Watch the Agents Watching Our Borde...	2017-02-16 03:21:22
https://nyti.ms/2lmzkM9	Well, Trump Watchers, Things Could Be Worse	2017-02-16 03:21:22