

## Guidelines:

1. Conceptual model - Chen notation - идеен модел  
<https://www.vertabelo.com/blog/chen-erd-notation/>  
<https://www.rathishkumar.in/2015/12/conceptual-data-model.html>
2. Logical model - Crow's foot notation - логически модел  
<https://vertabelo.com/blog/crow-s-foot-notation/>  
<http://www2.cs.uregina.ca/~bernatja/crowsfoot.html>
3. Physical model - UML database notation - физически модел  
<https://www.vertabelo.com/blog/summer-is-here-a-travel-agency-data-model/>
4. More  
<https://www.codeproject.com/Articles/878359/Data-Modelling-using-ERD-with-Crow-Foot-Notation>
5. MySQL revision  
Basics - <https://www.mysqltutorial.org/mysql-basics/>  
Aggregate functions - <https://www.mysqltutorial.org/mysql-aggregate-functions.aspx>
6. MySQL Further
  - Triggers - <https://www.mysqltutorial.org/mysql-triggers/>
  - Stored procedures - <https://www.mysqltutorial.org/introduction-to-sql-stored-procedures.aspx>
  - Call stored procedure from a trigger - <https://www.mysqltutorial.org/mysql-triggers/mysql-call-stored-procedure-from-trigger/>
  - Views - <https://www.mysqltutorial.org/mysql-views-tutorial.aspx> & <https://www.mysqltutorial.org/create-sql-views-mysql.aspx>
  - Functions - <https://www.mysqltutorial.org/mysql-functions.aspx>
  - Index - <https://www.mysqltutorial.org/mysql-index/mysql-create-index/>
  - Jobs/Scheduled events - <https://www.mysqltutorial.org/mysql-triggers/working-mysql-scheduled-event>
  - Rules of Thumb - <https://mysql.rjweb.org/doc.php/ricksrots#partitioning>
  - Levels of Normalisation - <https://www.rathishkumar.in/2016/01/what-is-database-normalization.html>
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7. Data Warehouse
  - DB vs DW - <https://panoply.io/data-warehouse-guide/the-difference-between-a-database-and-a-data-warehouse/>
  - OLAP vs OLTP - <https://www.ibm.com/cloud/blog/olap-vs-oltp>
  - Things you should avoid while designing a DW - <https://www.sqlshack.com/things-you-should-avoid-when-designing-a-data-warehouse/>
  - Video - Implementing DW with MS SQL - <https://www.youtube.com/watch?v=StoWu2A8Ufs>
  - <https://www.thepowermba.com/en/blog/everything-you-need-to-know-about-data-warehouse-real-world-examples>
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## 8. Power BI

- [https://www.youtube.com/watch?v=TmhQCQr\\_DCA](https://www.youtube.com/watch?v=TmhQCQr_DCA)

Sample projects from previous years:

<https://drive.google.com/drive/folders/1e9usmk728w4gDID8hRVjAdIdXt4h7gSc?usp=sharing>