* More automation today
* Roll-up summary field
  + Field on the master record that summarizes data from detail records
  + No average field, have to do with count, sum and a formula field
  + Case statements are a nice way to avoid nested ifs
* Formula fields are never saved in the database
* Roll-up summaries are saved in the database when any of the details are updated
* Regular expressions
  + We can use these to validate email addresses and phone numbers and things of that nature
  + Been around since the 80s
  + Series of characters with a specific meaning
  + Table

    Description automatically generated
  + Table

    Description automatically generated
  + Table

    Description automatically generated
  + Vlookup
    - If a field is set to a value, another value cannot be changed
  + A picture containing table

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* Automating with process builder and workflow
  + Workflows are dated but still show up on certifications
  + Processes
    - The product of the process builder
    - Automate processes with a visual interface
    - 3 areas
      * Evaluation criteria
      * Rule criteria
      * Time triggers
    - Fancy If-Else statements
    - Easy version control
    - Can create automatic and scheduled processes
    - This is a declarative tool that can replace some of Apex
    - Best practice
      * One per object
        + We do not know the order
      * Avoid recursion
      * Use isNew with update and create since we only make one per object
    - Scheduled actions can be created under advanced and specific changes to the record
      * The tasks in the tank to be executed can be viewed and deleted in the setup menu
    - Platform event
      * Can trigger a process or flow
      * Similar to custom objects and can be defined in the same way
      * Can be used with APIs
      * Messages enable near real-time integration between salesforce and external systems
      * Called the pub sub
        + Publisher subscriber architecture
        + Diagram

          Description automatically generated
    - What can a workflow do?
      * A picture containing table

        Description automatically generated
      * Only tool that can send outbound messages
      * Need to activate after you create one
      * Use this for tasks and sending outbound messages
      * Can have up to 10 workflow rules per object
* Approval processes
  + Similar to workflows
  + Can take the same actions as workflows
  + Steps a record must go through to get approval
  + Examples are time sheets, expense reports…
  + Can add submit for approval button or do in a process
  + Diagram

    Description automatically generated
  + Initial submission actions – what happens when a record is submitted for approval
  + Step definition – who should records be routed to
  + Final rejection actions – what happens if it is not approved
  + Final approval actions – what happens when it is approved
  + Final recall actions – what happens when it is recalled by the submitter or the approver
* Review
  + Graphical user interface, text, application

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  + Skipping steps can happen based on a criteria using “go to next step”
    - Won’t be an option until you have more than one step