MICROSOFT EXCEL



Data Validation

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- Data validation
- To create a data validation drop-down list
 Practice

3 Introduction

- You can help users to enter accurate and appropriate information into worksheets with Excel's Data Validation feature.
- **Data validation** can restrict the type of information that is entered in a cell and can provide instructions for the user on entering information.

Data Validation Allow Options

| ata Validation | | 2 X |
|--------------------------------------|------------------------------------|--------|
| Settings Input Message | Error Alert | |
| Validation criteria | | |
| <u>A</u> llow: | | |
| List | ✓ Ignore <u>b</u> lank | |
| Any value Whole number Decimal | ✓ In-cell dropdown | |
| List | | |
| Time Text length Custom | | |
| Clear All | other cells with the same settings | Cancel |
| | | |

4

In data validation dialog box we have different tools for different purposes.

- Using the list option, you might want to restrict the (or select from list of) birthplace entries, for the cities from your country Again using the list option, you can restrict class entries to allow only specific classes.
- Using date option, you might want to restrict the birth date entries, between two dates
- Again using date option, you might want to restrict the birthdate entries.
 You can allow registering only the people who are 18 or older.

5 Data Validation : Input Message

 You can enter a title and an input message that will be displayed when you select the cell(s) in the range.
 If you clear the check box, Input Message will be disabled.

| Data Validation |
|---|
| Settings Input Message Error Alert |
| ☑ Show input message when cell is selected |
| When cell is selected, show this input message: |
| <u>T</u> itle: |
| |
| Input message: |
| |
| |
| - |
| |
| |
| Clear All OK Cancel |
| |

Data Validation : Error Alert

You can also enter a title and an error message that will be displayed when someone enters an incorrect value. There are three options; Stop, Warning, and Information in the Style drop down menu.

- Stop: Prevents you from entering an incorrect value.
- Warning and Information: displays the error message and asks if you are sure or not. If you say OK, it'll accept the value.

| Data Validation | ? <mark>×</mark> |
|----------------------------------|---------------------------|
| Settings Input Message Er | ror Alert |
| Show error alert after invalid | data is entered |
| When user enters invalid data, s | how this error alert: |
| St <u>y</u> le: | <u>T</u> itle: |
| Stop 💌 | Spelling Error |
| | Error message: |
| | Spell the word correctly! |
| 8 | ~ |
| <u>C</u> lear All | OK Cancel |

You can enter a title and an error message that will be displayed when you enter incorrect value. If you clear the check box, Error Message will be disabled.

- Data validation allows you to **control exactly what a user can enter into a cell**. In our example, we can use data validation to ensure that the user chooses one of the three possible shipping options. To make things even easier, we can insert a **drop-down list** of the possible options.
- This kind of data validation allows you to build a powerful, fool-proof spreadsheet. Since users won't have to type in data manually, the spreadsheet will be faster to use, and there's a much lower chance that someone can introduce an error.

- Select the cell where you want the drop-down list to appear. In our example, that's cell **B2** on the **Student** worksheet.
- 2. On the **Data** tab, click the **Data Validation** command.



3. A dialog box will appear. Under the **Settings** tab,

- ✓ In the Allow: field, select List.
- In the Source: field, type the equals sign (=) and the name of your range, and then click OK. In our example, we'll type:
 =GradeBook!\$B\$5:\$B\$30.

| Data Validation | n | | | ? X |
|-------------------|-------------------|----------------|------------------|----------|
| Settings I | nput Message | Error Alert | | |
| Validation c | riteria | | | |
| <u>A</u> llow: | | | | |
| List | | 👻 📝 Igno | re <u>b</u> lank | |
| Data: | | In-ce | ell dropdown | |
| between | | | | |
| Source: | | | | |
| =GradeBo | ok!\$B\$5:\$B\$30 | | Ţ | |
| | | | | |
| | | | | |
| Apply the | ese changes to a | II other cells | with the same s | settings |
| <u>C</u> lear All |] | | ОК | Cancel |

| | Α | В | С | D | E | F |
|----|-----------------|-------------------|------------|------------|----------|----------|
| | | | | | | |
| 1 | | | | | GKAI | JEDU |
| 2 | ASSIGNM | IENT DATE | 01.02.2017 | 08.05.2017 | | |
| 3 | ASSIGNM | IENT PERCENTAGE | 20% | 20% | 10% | 10% |
| 4 | Class 🔽 Student | | Exam 1 💌 | Exam 2 💌 | Quiz 1 💌 | Quiz 2 🔽 |
| 5 | 10A | Adonita Retkoceri | 83 | 81 | 95 | 61 |
| 6 | 10A | Altina Jashari | 87 | 84 | 73 | 77 |
| 7 | 10A | Art Alili | 59 | 77 | 96 | 92 |
| 8 | 10A | Blerina Morina | 80 | 86 | 91 | 64 |
| 9 | 10A | Drilon Sylejmani | 65 | 96 | 100 | 94 |
| 10 | 10A | Elina Sharri | 100 | 55 | 93 | 62 |
| 11 | 10A | Kushtrim Haziri | 57 | 89 | 97 | 81 |
| 12 | 10A | Venera Hoxha | 60 | 76 | 91 | 70 |
| 13 | 10A | Vigan Mustafa | 97 | 78 | 95 | 100 |
| 14 | 10B | 10B Art Dushi 59 | | 87 | 70 | 60 |
| 15 | 10B | Aulona Retkoceri | 72 | 93 | 86 | 63 |
| 16 | 10B | Binak Gjonbalaj | 100 | 66 | 84 | 76 |
| 17 | 10B | Edlira Miftari | 64 | 64 | 63 | 80 |
| 18 | 150 | Marson Jakupi | 98 | 74 | 73 | 95 |
| 19 | 10B | Yll Zajmi | 55 | 67 | 91 | 59 |
| 20 | 10B | Yllza Sulejmani | 73 | 66 | 80 | 68 |
| 21 | 10B | Zyber Zogaj | 95 | 100 | 76 | 67 |
| 22 | 10C | Aulona Beqiri | 84 | 79 | 65 | 73 |
| 23 | 10C | Blerant Jusufi | 74 | 59 | 63 | 74 |
| 24 | 10C | Dardan Selmani | 100 | 70 | 95 | 60 |
| 25 | 10C | Ejona Jusufi | 79 | 87 | 100 | 77 |
| 26 | 10C | Florent Shala | 84 | 83 | 82 | 60 |
| 27 | 10C | Gresa Ajeti | 59 | 75 | 72 | 72 |
| 28 | 10C | Rrita Zogaj | 77 | 86 | 99 | 100 |
| 29 | 10C | Vesa Ferizi | 76 | 88 | 79 | 75 |
| 30 | 10C | Yll Hasani | 64 | 70 | 94 | 77 |
| 31 | | | | | | |

4. Select cell B2 and click over down arrow at the bottom-right corner of the cell. Then select a student.

| B 2 | | - | : | × | \checkmark | f_x | Art Dushi | | | | |
|-------------|---|---|-----------------|--------|--------------|---------|-----------|---|--|--|--|
| | Α | ł | В | | | С | D | | | | |
| 1 | | G | OK | | | | | | | | |
| 2 | | Art Dushi | | | | | | | | | |
| 3 | | Art Dushi Aulona Retk Binak Gjonb | oceri alaj | | | | | ^ | | | |
| 4 5 6 | | Edlira Miftar Marson Jaku YII Zajmi YIIza Sulejma Zyber Zogaj | i Ipi Ani | | | | | - | | | |
| 7 | Ċ | Qu | iz 2 | | 1 | 0% | 60 | | | | |
| 8 | | Home | ewoi | rk | 2 | 0% | 64 | | | | |
| 9 | | Acti | ivity | | 2 | 0% | 76 | | | | |
| 10 | | | | | | | | | | | |
| 11 | | Αν | era | ge So | core | | 70.2 | | | | |
| 12 | | Average Mark 4 | | | | | | | | | |
| 13 | | | | | | | | | | | |
| 1.0000 | • | | Grad | deBook | c _ S | itudent | + | | | | |

Restrict to a Specific Date Range

With data validation, you can require dates in a cell, and specify which dates are valid. To set a specific date range, follow these steps:

- 1. Select the cell where you want the data validation applied (C2).
- 2. On the **Ribbon**, click the **Data tab**, then click **Data Validation**.
- 3. From the Allow drop down, select Date.

| | File | Home | Insert | Page La | yout Form | ulas Data | Review | View | v Power Pi | ivot 🤉 | Tell me what you | want to do |
|----|-----------------------|----------------|---------------------|-------------------------|------------------|------------|----------------------|--------------|------------------------------|--------------------|---|---|
| Ge | t External Data ▼ | New Query • | Show Qu From Tal | ueries ble ources | Refresh All + | operties Z | ↓ ZAZ Z ↓ Sort | Filter | Clear Reapply Advanced | Text to Columns | EF Flash Fill E™ Remove Dupli S S Data Validatio | I a Consolidat cates ⊄ Relationshi n ▼ Manage Da |
| | | Get | & Transforr | m | Connec | tions | 5 | Sort & Filte | er | | Dat | a Tools |
| (| ~2 | | X | √ f× | | | | | | | Data Validation | |
| | A | | В | , j. | С | D | | E | F | | Pick from a list of type of data that cell. | of rules to limit the t can be entered in a |
| 1 | | | | | | | GI | RA | DEE | 80(| For example, yo of values, like 1, allow numbers of | u can provide a list 2, and 3, or only greater than 1000 as |
| 2 | 2 ASSIGNMENT DATE | | | | | | | | | valid entries. | | |
| 3 | ASSIGNMENT PERCENTAGE | | ГAGE | 20% | 20% | 1 | L 0% | 10% |) | 🕜 Tell me mo | re | |
| 4 | Class | 💌 Stu | dent | - | Exam 1 🔽 | Exam 2 | ▼ Q | uiz 1 📘 | - Quiz | 2 🔽 | Homework 💌 | Activity 🔽 📑 |
| 5 | 10A | Ado | nita Retk | oceri | 83 | 81 | | 95 | 61 | | 68 | 89 |

- 4. A dialog box will appear. Under the **Settings** tab,
 - ✓ In the Allow: field, select Date.
 - In the Data drop down, select one of the operators, such as Greater Than, or Between.
 - Depending on the operator you selected, Start Date and/or End Date boxes will appear.
 - Type a date in the Start Date and/or End Date boxes, OR refer to a worksheet cell that contains the start or end date.

| Data Validation | Data Validation |
|--|---|
| Settings Input Message Error Alert | Settings Input Message Error Alert |
| Validation criteria | Validation criteria |
| Allow: Date Ignore <u>b</u> lank | Allow: Date |
| Data: | Data: between ▼ |
| between not between | <u>Start date:</u> 01.09.2016 |
| greater than | End date: 01.06.2017 |
| greater than or equal to less than or equal to her cells with the same settings | Apply these changes to all other cells with the same settings |
| Clear All OK Cancel | Clear All OK Cancel |

- 5. (optional) Add an **Input Message**, to explain the data validation rule when the cell is selected.
- (optional) Change the Error Alert setting, so it shows a message, or warns users about invalid data.
- 7. Click **OK**, to close the dialog box.

| Data Validation | Data Validation |
|--|---|
| Settings Input Message Error Alert Show input message when cell is selected When cell is selected, show this input message: Title: Warning | Settings Input Message Error Alert Show error alert after invalid data is entered When user enters invalid data, show this error alert: Style: Title: Stop Input Error! |
| Input message: Date value must be between 01.09.2016 - 01.06.2017 | Error message: |
| Clear All OK Cance | Clear All OK Cancel |

Select the cell and see the Input Message.
 Enter an incorrect date and see the Error Alert.





Restrict to a Dynamic Date Range

Instead of setting a specific date range, you can create a dynamic range. In this example, a formula is used in the date box, to allow only dates within a specific number of days from the current date.

 Type a formula in the Start Date and/or End Date boxes, using the TODAY function. For example,

| Da | ta Validati | ion | | ? × |
|----|-------------------|-------------------|--|--|
| | Settings | Input Message | Error Alert | |
| ŀ | Validation | criteria | | |
| L | <u>Allow:</u> | | | |
| Ŀ | Date | | Ignore <u>b</u>lank | |
| Ŀ | Data: | | | |
| Ŀ | betwee | n | • | |
| Ŀ | <u>S</u> tart dat | e: | | |
| Ŀ | =TODA | ()-60 | 1 | |
| L | E <u>n</u> d date | 21 | | |
| L | =TODA | ()+60 | 1 | |
| | Apply t | hese changes to a | all other cells with the same | e settings |
| | <u>C</u> lear All | | ОК | Cancel |
| | | | CONTRACTOR OF THE OWNER OF | NAMES OF TAXABLE PARTY OF TAXABLE PARTY. |

To set the earliest start date allowed as 60 days prior to the current date:

=TODAY()-60

To set the latest start date allowed as 60 days after the current date: =TODAY()+60

Prohibit Weekend Dates

Prevent entry of dates that fall on Saturday or Sunday. The WEEKDAY function returns the weekday number for the date entered, and values of 1 (Sunday) and 7 (Saturday) are not allowed.

| Data Validati | ion | | | | | | | | |
|---|-------------------------------------|--|--|--|--|--|--|--|--|
| Settings | Input Message Error Alert | | | | | | | | |
| Validation | o criteria | | | | | | | | |
| Allow: | | | | | | | | | |
| Custom | ▼ Ignore <u>b</u> lank | | | | | | | | |
| Data: | | | | | | | | | |
| betwee | n 💌 | | | | | | | | |
| <u>F</u> ormula: | | | | | | | | | |
| =AND(V | NEEKDAY(B2) <> 1, WEEKDAY(B2) <> 7) | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| Apply these changes to all other cells with the same settings | | | | | | | | | |
| <u>C</u> lear All | OK Cancel | | | | | | | | |

1.Select the cell.

- 2.On the Ribbon's Data tab, click Data Validation.
- 3.On the Settings tab, from the Allow drop down, choose: Custom

4.For the formula, enter:

=AND(WEEKDAY(B2) <> 1, WEEKDAY(B2) <> 7)

- You can restrict an entry to a number range.
- Select the cell(s) where you want add data validation.
 - In our example, that's cell range **C5:H30** on the **Student** worksheet.
 - On the **Data** tab, click the **Data Validation** command.

| t External Data ▼ Query ▼ Co Recent Sources Get & Transform | | Refresh All - Connections | | Z↓ So | ort Filter Sort & Filt | 🏷 ter | Advanced Colum | to mns 😽 Data Validatio Da | n 🝷 🔞 Manage ta Tools | | | |
|---|-------|------------------------------|-----------------|-------|---------------------------|----------|----------------|----------------------------------|--------------------------|------------|------------|------------|
| - 5 | | | | 02 | | | | | | | | |
| ~ | | | | | 05 | | | | | | | |
| 1 | Α | | В | | С | D | | E | | F | G | Н |
| | | | | | | | (| GRA | J | DEBO | OK | |
| | ASSIG | NMI | ENT DATE | | 08.02.2017 | 15.05.20 | 17 | 01.02.2017 | 7 | 08.05.2017 | 19.01.2017 | 28.05.2017 |
| | ASSIG | NMI | NT PERCENT | AGE | 20% | 20% | | 10% | | 10% | 20% | 20% |
| | Class | - | Student | - | Exam 1 🔽 | Exam 2 | 2 🖵 | Quiz 1 | - | Quiz 2 💌 | Homework 🔽 | Activity 🔽 |
| 1 | 10A | _ | Adonita Retko | ceri | 83 | 81 | | 95 | | 61 | 68 | 89 |
| | 10A | | Altina Jashari | | 87 | 84 | | 73 | | 77 | 100 | 66 |
| | 10A | | Art Alili | | 59 | 77 | | 96 | | 92 | 55 | 60 |
| | 10A | | Blerina Morina | 3 | 80 | 86 | | 91 | | 64 | 72 | 67 |
| | 10A | | Drilon Sylejma | ni | 65 | 96 | | 100 | | 94 | 57 | 91 |
|) | 10A | | Elina Sharri | | 100 | 55 | | 93 | | 62 | 90 | 93 |
| L | 10A | | Kushtrim Haziri | | 57 | 89 | | 97 | | 81 | 86 | 89 |
| 2 | 10A | | Venera Hoxha | | 60 | 76 | | 91 | | 70 | 89 | 74 |
| 3 | 10A | | Vigan Mustafa | 1 | 97 | 78 | | 95 | | 100 | 94 | 91 |
| 1 | 10B | | Art Dushi | | 59 | 87 | | 70 | | 60 | 64 | 76 |
| 5 | 10B | | Aulona Retkoc | eri | 72 | 93 | | 86 | | 63 | 74 | 67 |
| 5 | 10B | | Binak Gjonbala | aj | 100 | 66 | | 84 | | 76 | 84 | 65 |
| 7 | 10B | | Edlira Miftari | | 64 | 64 | | 63 | | 80 | 56 | 61 |
| 3 | 10B | | Marson Jakupi | | 98 | 74 | | 73 | | 95 | 80 | 90 |
|) | 10B | | Yll Zajmi | | 55 | 67 | | 91 | | 59 | 88 | 74 |
|) | 10B | | Yllza Sulejman | i | 73 | 66 | | 80 | | 68 | 85 | 75 |
| L | 10B | | Zyber Zogaj | | 95 | 100 | | 76 | | 67 | 63 | 61 |
| 2 | 10C | | Aulona Beqiri | | 84 | 79 | | 65 | | 73 | 74 | 98 |
| 3 | 10C | | Blerant Jusufi | | 74 | 59 | | 63 | | 74 | 87 | 56 |
| 1 | 10C | | Dardan Selmani | | 100 | 70 | | 95 | | 60 | 100 | 76 |
| 5 | 10C | | Ejona Jusufi | | 79 | 87 | | 100 | | 77 | 55 | 91 |
| 5 | 10C | | Florent Shala | | 84 | 83 | | 82 | | 60 | 99 | 73 |
| 7 | 10C | | Gresa Ajeti | | 59 | 75 | | 72 | | 72 | 90 | 97 |
| 3 | 10C | | Rrita Zogaj | | 77 | 86 | | 99 | | 100 | 100 | 90 |
|) | 10C | | Vesa Ferizi | | 76 | 88 | | 79 | | 75 | 79 | 81 |
|) | 10C | | Yll Hasani | | 64 | 70 | | 94 | | 77 | 88 | 97 |
| | 4 | | Grades St | udent | | | | | | | | |

- 3. A dialog box will appear. Under the Settings tab,
 - ✓ In the Allow: field, select Whole number.
 - ✓ In the Data drop down, select Between.
 - \checkmark Type minimum and maximum value ranges.

| ata Validat | ion | ? × |
|-------------------|---|--------------|
| Settings | Input Message Error Alert | |
| Validation |) criteria | |
| <u>Allow:</u> | | |
| Whole | number 🛛 🔽 Ignore <u>b</u> lank | |
| <u>D</u> ata: | | |
| betwee | n 💌 | |
| <u>M</u> inimur | n: | |
| 0 | | <u>1</u> |
| Ma <u>x</u> imur | m: | |
| 100 | | 1 |
| Apply t | these changes to all other cells with the s | ame settings |
| <u>C</u> lear All | ОК | Cancel |
| | | |

- 4. Under the Error Alert tab,
 - ✓ In the Style: field, select Stop
 - ✓ In the Title: field, type Input Error!
 - ✓ In the Error Message, type Grade range : 0-100

| Data Validat | ion | - | 12 | | 2 | × | | | |
|--|---------------------|--------|----------------|--------------|-----|------|--|--|--|
| Settings | Input Message | Err | ror Alert |] | | | | | |
| Show error alert after invalid data is entered | | | | | | | | | |
| When use | r enters invalid da | ta, sl | how this | error alert: | | | | | |
| Style: | | | <u>T</u> itle: | | | | | | |
| Stop | | • | Input E | rror! | | | | | |
| | | | Error me | ssage: | | | | | |
| | | | Grade r | ange : 0-100 | | ~ | | | |
| | | | | | | | | | |
| | | | | | | - | | | |
| | | | | | | | | | |
| <u>C</u> lear All | | | | ОК | Car | ncel | | | |
| | | | | | | | | | |

5. Type a value out of range (like 150) and see the Input Error.

| 2.2017 0% | 15.05.2017 20% | 01.02.2017 10% | 08.05.2017 10% | 19.01.2017 20% | |
|--------------|-------------------|---------------------|-------------------|-------------------|--|
| am 1 💌 | Exam 2 💌 | Quiz 1 💌 | Quiz 2 💌 | Homework 💌 | |
| 83 | | 95 | 61 | 68 | |
| 87 | Input Error! | | | 100 | |
| 59 | | | | 55 | |
| 80 | a 🔀 🛛 | irade range : 0-100 | | 72 | |
| 65 | | | | 57 | |
| .00 | <u></u> E | try Cancel | <u>H</u> elp | 90 | |
| 57 | 89 | 97 | 81 | 86 | |
| 50 | 76 | 150 | 70 | 89 | |
| 97 | 78 | 95 | 100 | 94 | |
| 59 | 87 | 70 | 60 | 64 | |
| 72 | 93 | 86 | 63 | 74 | |
| | | | | | |

21 Allow Options : Text length

You can limit characters length in a cell.

22 Allow Options : Custom (Part 1)

- This example teaches you how to use data validation to prevent users from exceeding a budget limit.
 - 1. Select the cells in range of B2:B8.
 - 2. Open Data Validation from the Data Tab.

| | Dat | a | Review | Vie | w Power | Pivot | ♀ Tell me what you want to |
|---|-----|----------|--------------------|-----------|---------------------------|--------|---------------------------------|
| 1 | ons | 2↓ ∡↓ | Z A A Z Sort | Filter | Clear Clear Reapply | Text f | Flash Fill Remove Duplicates |
| | | | S | ort & Fil | ter | | Data Tools |

| | А | В |
|----|-----------|---------|
| 1 | Party B | udget |
| 2 | Balloons | \$10.00 |
| 3 | Confetti | \$5.00 |
| 4 | Cups | \$5.00 |
| 5 | Drinks | \$40.00 |
| 6 | Cake | \$10.00 |
| 7 | Snacks | |
| 8 | Ice Cream | \$10.00 |
| 9 | | |
| 10 | Total | \$80.00 |

23 Allow Options : Custom (Part 1)

- 3. In the Settings tab, you can enter validation criteria.
 - =SUM(\$B\$2:\$B\$8)<=100</p>
- 4. In the Error Alert tab, you can enter a warning text.
 - Style : Stop
 - ■Title : Budget Limit Exceeded
 - Error message : You cannot exceed your budget limit of \$100

| Data Validation | Data Validation |
|---|---|
| Settings Input Message Error Alert Validation criteria Allow: Custom Vignore blank Data: between Eormula: | Settings Input Message Error Alert Image: Show error alert after invalid data is entered When user enters invalid data, show this error alert: Style: Title: Stop Budget Limit Exceeded Error message: Error message: |
| ■ SUM(\$B\$2:\$B\$8)<=100 ▲ Apply these changes to all other cells with the same settings Clear All OK Cancel | You cannot exceed your budget limit of \$100. |

Allow Options : Custom (Part 1)

Now, when you exceed the limit you will get a error message as we defined.

| | А | В | С | D | E | F | |
|----|-----------|---------|---|-------|-----------------|------|--|
| 1 | Party E | Budget | | | | | |
| 2 | Balloons | \$10.00 | | | | | |
| 3 | Confeti | \$5.00 | | | | | |
| 4 | Cups | \$5.00 | | | | | |
| 5 | Drinks | \$40.00 | Budget Limit Exceeded | | | | |
| 6 | Cake | \$10.00 | | | | | |
| 7 | Snacks | 25 | You cannot exceed your budget limit of \$100. | | | | |
| 8 | Ice Cream | \$10.00 | | Retry | Cancel <u>H</u> | lelp | |
| 9 | | | | | | | |
| 10 | Total | \$95.00 | | | | | |

²⁵ Allow Options : Custom (Part 2)

- This example teaches you how to use data validation to prevent users from entering incorrect product codes.
- 1. Select the range A2:A15.
- 2. On the Data tab, click Data Validation.

| | | А | B |
|---|---|-------|--------------|
| 1 | L | Codes | Product |
| 2 | 2 | C233 | wheat |
| З | 3 | C234 | rice |
| 4 | 1 | C256 | peanuts |
| 5 | 5 | C278 | onions |
| 6 | 5 | C112 | pumpkins |
| 7 | 7 | C132 | peppers |
| 8 | 3 | C642 | spinach |
| 9 |) | C649 | apples |
| 1 | 0 | C542 | cherries |
| 1 | 1 | C233 | popcorn |
| 1 | 2 | | honey |
| 1 | 3 | | strawberries |
| 1 | 4 | | almonds |
| 1 | 5 | | roses |



Allow Options : Custom (Part 2)

- 3. In the Allow list of Settings tab, click Custom.
- In the Formula box, enter the formula shown below and click OK.

=AND(LEFT(A2)="C",LEN(A2)=4,ISNUMBER(VALUE(RIGHT(A2,3))))

| Data Valida | tion | ? <mark>- × -</mark> |
|-------------------|-------------------|--|
| Settings | Input Message | Error Alert |
| Validation | criteria | |
| Allow: | | |
| Custom | | Jgnore <u>b</u> lank |
| Data: | | |
| betwee | n | v |
| Eormula: | | |
| =AND(L | EFT(A2)="C",LEN | (A2)=4,ISNUMBER(VALUE(RIGHT(A2,3)))) 📧 |
| Apply t | hese changes to a | Il other cells with the same settings |
| <u>C</u> lear All | | OK Cancel |
| | | |

AND function has three arguments.

- LEFT(A2)="C" forces the user to start with the letter C.
- LEN(A2)=4 forces the user to enter a string with a length of 4 characters.
 - ISNUMBER(VALUE(RIGHT(A2,3))) forces the user to end with 3 numbers.
 - RIGHT(A2,3) extracts the 3 rightmost characters from the text string.
 - VALUE function converts this text string to a number.
 - ISNUMBER checks whether this value is a number.

27 Allow Options : Custom (Part 2)

5. In the Input Message tab,

- Write "Enter Product Code" for Title.
- Write "Start with the letter C followeb by 3 numbers!" for Input Message.

6. In the Error Alert tab,

Write "Incorrect Product Code" for Title.

 Write "Product codes should look like this : C609 or C372" for Error Message.

| ata Validation | 2 × | Data Validation | 8 |
|---|----------|----------------------|---|
| Settings Input Message Error Alert | | Settings Input Me | essage Error Alert |
| Show input message when cell is selected | | ✓ Show error alert a | after invalid data is entered |
| When cell is selected, show this input message: | | When user enters inv | valid data, show this error alert: |
| <u>T</u> itle: | | St <u>y</u> le: | <u>T</u> itle: |
| Enter Product Code | | Stop | ✓ Incorrect Product Code |
| Input message: | | | Error message: |
| Start with the letter C followed by 3 numbers! | * | 8 | Product codes should look like this : C609 or C372 |
| | T | | |
| <u>C</u> lear All OK | Cancel | <u>C</u> lear All | OK |

28 Allow Options : Custom (Part 2)

7. Enter an incorrect product code. Excel shows an error alert.

| | А | В | С | D | E | F | | |
|----|--------|------------------------|--|---|---|---|--|--|
| 1 | Codes | Product | | | | | | |
| 2 | C233 | wheat | | | | | | |
| 3 | C234 | rice | | | | | | |
| 4 | C256 | peanuts | | | | | | |
| 5 | C278 | onions | | | | | | |
| 6 | C112 | pumpkins | | | | | | |
| 7 | C132 | peppers | | | | | | |
| 8 | C642 | spinach | | | | | | |
| 9 | C649 | apples | | | | | | |
| 10 | C542 | cherries | | | | | | |
| 11 | C233 | popcorn | | | | | | |
| 12 | c4 | honey | Incorrect Product Code | | | | | |
| 13 | Enter | Product Code BS | Product codes should look like this : C609 or C372 | | | | | |
| 14 | follow | red by 3 numbers! | | | | | | |
| 15 | | | Retry Cancel Help | | | | | |
| | | | | | | | | |

²⁹ Practice

- Open our practice workbook.
- Click the Customers tab in the bottom-left of the workbook.
- Apply a filter to show only Electronics and Instruments.
- Use the Search feature to filter item descriptions that contain the word Sansei. After you do this, you should have six entries showing.
- Clear the Item Description filter.
- Using a **number filter**, show loan amounts **greater than or equal to** \$100.
- Filter to show only items that have deadlines in 2016.



